

TRAFFIC IMPACT AND ACCESS STUDY

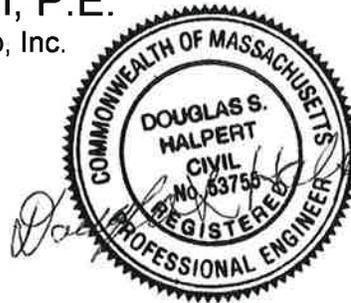
PROPOSED MISSION BOATHOUSE RESTAURANT BEVERLY, MA

GPI

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SUBMITTED TO:

Mr. Scott P. Cameron, P.E.
The Morin-Cameron Group, Inc.
66 Elm Street
Danvers, MA 01923



August 2019

GPI

*The Morin-Cameron Group, Inc.
Proposed Mission Boathouse Restaurant
Traffic Impact and Access Study
August 2019*

TRAFFIC IMPACT AND ACCESS STUDY

Mission Boathouse Restaurant – Beverly, Massachusetts

REF: MAX-2019071.00

DATE: August 8, 2019

TO: Mr. Scott P. Cameron, P.E.
The Morin-Cameron Group, Inc.
66 Elm Street
Danvers, Massachusetts 01923

FROM: Ms. Rebecca L. Brown, P.E., P.T.O.E., Senior Project Manager
Mr. Douglas S. Halpert, P.E., Project Engineer

RE: Traffic Impact and Access Study
Proposed Mission Boathouse Restaurant
1 Water Street Beverly, Massachusetts

INTRODUCTION

Greenman-Pedersen, Inc. (GPI) has prepared this Traffic Impact and Access Study (TIAS) for the proposed redevelopment of the former McDonalds restaurant located at 1 Water Street in Beverly, Massachusetts. The site is located on the south-east corner of Route 1A (Cabot Street / Essex Bridge) / Water Street intersection. The project consists of razing the existing structure on site and constructing a ±6,800 square foot (SF) quality restaurant with three floors and 350 seats. The first floor of the restaurant building will contain a ±730 SF bar/lounge with 12 seats, a ±600 SF snack shop, and ±250 SF waterfront retail building for boat tours and rentals to provide amenities to patrons of the waterfront area. The upper floors of the restaurant will contain 338 seats with a mix of indoor and outdoor seating and function space. Access and egress to the site is currently provided via a single full-access / egress driveway on the southerly side of Water Street, which will be maintained as part of the Project. This study has been conducted to evaluate the traffic impacts and access / egress requirements for the proposed redevelopment.

The site is bounded by Route 1A (Essex Bridge) and Water Street to the north; Saraband boat retailer to the east; Beverly Harbor Management Authority and pier to the west; and Beverly Harbor to the south. The site location in relation to the surrounding roadways is shown on the map on Figure 1.

TRAFFIC IMPACT AND ACCESS STUDY

Mission Boathouse Restaurant - Beverly, Massachusetts



Figure 1
Project Location Map

EXISTING CONDITIONS

Study Area

Evaluation of the traffic impacts associated with the proposed project requires an evaluation of existing and projected traffic volumes on the adjacent streets, the volume of traffic expected to be generated by the project, and the impact that this traffic will have on the adjacent streets and nearby intersections. In preparing the TIAS for the proposed site, the following intersections have been analyzed and evaluated based on feedback from the City of Beverly Planning Department:

- Rantoul Street (Route 1A) / School Street (signalized)
- Rantoul Street (Route 1A) / Cabot Street (Route 22) (signalized)
- Cabot Street (Route 1A) / Water Street / Front Street / Goat Hill Lane (signalized)
- Essex Street (Route 1A) / Congress Street (unsignalized)

Route 1A

Route 1A changes names from Essex Bridge to Cabot Street to Rantoul Street traveling north through the study area, and is classified as an urban principal arterial roadway that is aligned in an overall north-south direction. The roadway is under the jurisdiction of the City of Beverly north of the Essex Bridge, and provides connection between the Town of Wenham to the north and the City of Salem to the south. Route 1A (Rantoul Street / Cabot Street) is generally 46 feet, providing one 11-foot travel lane, a 5-foot bicycle lane, and a 7-foot on-street parking lane in each direction, separated by a striped double-yellow centerline. Route 1A (Essex Bridge) is generally 68-feet wide, providing two 11-foot travel lanes and a variable width shoulder in each direction, separated by a striped 12-foot wide raised concrete median. Route 1A has a posted speed limit of 25 miles per hour (MPH) in both directions. Land uses along Route 1A near the site consist of commercial, residential, and recreational uses.

Rantoul Street (Route 1A) / School Street

School Street intersects Rantoul Street (Route 1A) to form a four-legged, signalized intersection. The Rantoul Street northbound and southbound approaches both consist of an 11-foot wide general-purpose travel lane, a 5-foot wide dedicated bicycle lane, and a 7-foot wide on-street parking lane with directional traffic separated by a striped double-yellow centerline. The School Street eastbound approach consists of a single 17-foot wide general-purpose lane with on-street parking permitted on both sides of the roadway and directional travel separated by a striped double-yellow centerline at the intersection. The School Street westbound approach is a one-way roadway traveling in the westbound direction and is approximately 30-feet wide with on-street parking permitted along both sides of the roadway. Sidewalks are provided along both sides of all approaches. Crosswalks and wheelchair ramps are provided across all legs of the intersection

except the Rantoul Street (Route 1A) northbound approach. There are no bicycle accommodations provided along School Street.

Rantoul Street (Route 1A) / Cabot Street (Route 22)

Cabot Street (Route 22) intersects Route 1A (Cabot Street / Rantoul Street) to form a three-legged, signalized intersection. There is a shared residential / commercial driveway provided as a fourth leg, but it is not incorporated as part of the traffic signal. The Cabot Street (Route 1A) northbound approach consists of an 11-foot wide shared left-turn / through lane and a 15-foot wide channelized right-turn lane with directional traffic separated by a raised concrete median. The Rantoul Street (Route 1A) southbound approach consists of an 11-foot wide through travel lane which widens to 20-foot wide at the intersection, a 5-foot wide dedicated bicycle lane, and a 7-foot wide on-street parking lane with directional traffic separated by a striped double-yellow centerline. The Cabot Street (Route 22) westbound approach consists of two 12-foot wide general-purpose lanes with directional travel separated by a raised concrete median at the intersection followed by a striped double-yellow centerline. There is a 30-foot wide driveway curb-cut located along the westerly side of the intersection which services local businesses and residents. Sidewalks are provided along both sides of all approaches. Crosswalks and wheelchair ramps are provided across all legs of the intersection except for the Cabot Street (Route 1A) northbound approach. There are no bicycle accommodations provided along Cabot Street (Route 22).

Cabot Street (Route 1A) / Water Street / Front Street / Goat Hill Lane

Water Street, Front Street, and Goat Hill Lane intersect Cabot Street (Route 1A) to form a five-legged, signalized intersection. The Cabot Street (Route 1A) northbound and southbound approaches both consist of an 11-foot wide left-turn lane and two 12-foot general-purpose travel lanes with directional traffic separated by a striped double-yellow centerline. The Water Street westbound approach consists of a single 11-foot wide general-purpose lane which widens at the intersection to 15-foot wide and has directional travel separate by a striped double-yellow centerline. Front Street is a one-way roadway traveling in the south-eastbound direction and provides a single 16-foot general-purpose lane which ties into Water Street at an unsignalized location just east of Cabot Street (Route 1A). On-street parking is provided along the westerly side of Front Street. The Goat Hill Lane eastbound approach consists of a single 12-foot wide general-purpose lane with directional travel separated by a striped double-yellow centerline. Sidewalks are provided along both sides of all approaches. Crosswalks and wheelchair ramps are provided across all legs of the intersection except for the Cabot Street (Route 1A) southbound approach. There are no bicycle accommodations provided at this intersection except for the Cabot Street (Route 1A) northbound approach, which provides a 7-foot wide bicycle lane.

Route 1A (Essex Bridge) / Congress Street

Congress Street intersects Route 1A (Essex Bridge) to form a three-legged, unsignalized intersection. The Congress Street eastbound approach is restricted to right-in/right-out movements only and consists of a 22-foot wide right-turn only lane with directional travel separated by a raised, grass median. The Route 1A southbound approach consists of two 12-foot wide general-purpose lanes with directional travel separated by jersey barriers. The Congress Street eastbound approach operates under STOP sign control and the Route 1A southbound approach operates under free-flow conditions. There are no bicycle or pedestrian accommodations provided at this intersection.

Public Transportation

The Massachusetts Bay Transportation Authority (MBTA) provides public transportation services within the Greater Boston Metropolitan Area, which includes the City of Beverly. The Beverly Depot train station is located 0.5 miles north of the proposed site location and is a stop for the MBTA's Newburyport/Rockport Commuter Line. The line provides service from the North Station in Boston which connects to Newburyport and to Rockport at Beverly Depot station. The average travel time between North Station / Newburyport is 60 minutes while travel time between North Station / Rockport is 70 minutes. On a typical weekday, this service runs between 4:55 AM and 12:00 AM for inbound travel, and between 6:26 AM and 1:22 AM for outbound travel. The fares for commuter line ranges from \$2.25 to \$12.50 for adults while seniors and persons with disabilities pay 50% off the regular fare. Children 11 years of age and under ride for free.

In addition to the commuter line, MBTA also provides public transportation services within the vicinity of the project through one of its bus lines. The Bus Line 451 connecting Salem Depot and North Beverly passes through Cabot Street to the east of the proposed site location. On a typical weekday, this service runs from 6:50 AM to 7:05 PM, with the average travel time from one end to another of 30 minutes. The fare for MBTA buses ranges from \$1.70 with CharlieCard to \$2.00 for cash-on-board for adults while seniors, persons with disabilities, and students pay \$0.85 per ride. Children 11 years of age and under ride for free.

The Cape Ann Transportation Operating Company (CATOC) provides shuttle service throughout the City of Beverly under contract with the City of Beverly and the MBTA via the Yellow Line – Beverly Shuttle Bus Route. CATOC provides service to numerous destinations in Beverly, including the Bridge Variety Store, Beverly Depot Commuter Rail Station, City Hall, North Beverly Plaza, Beverly Hospital, Montserrat Commuter Rail Station, Cedar Street Apartments, and Cummings Center. Weekday service operates from 6:45 AM to 5:00 PM, while Saturday service operates from 7:00 AM to 4:30 PM with 60- to 120-minute headways. The closest stop to the site is located at the Commuter Rail Station just west of Park Street. The fare for CATOC bus is \$0.50 for cash-on-board for adults while seniors, persons with disabilities, and students pay \$0.25 per ride.

Traffic Volumes

Automatic traffic recorders (ATR) were used to obtain daily traffic volumes and speeds on Water Street east of Front Street for weekday and Saturday daily periods. All traffic-count data is provided in detail in the Appendix.

Base traffic conditions within the study area were developed by conducting manual turning movement counts (TMCs) and vehicle classification counts at the study area locations. The TMCs and vehicle classification counts were first performed during the weekday PM peak period (4:00 PM to 6:00 PM) on Thursday May 30, 2019 and during the Saturday midday peak period (11:00 AM to 1:00 PM) on Saturday, June 1, 2019 for the following intersections:

- Rantoul Street (Route 1A) / School Street (signalized)
- Rantoul Street (Route 1A) / Cabot Street (Route 22) (signalized)
- Cabot Street (Route 1A) / Water Street / Front Street / Goat Hill Lane (signalized)

Additional TMCs were collected at the intersection of Route 1A (Essex Bridge) / Congress street at the request of the City of Beverly Planning Department during the weekday PM peak period (4:00 PM to 6:00 PM) on Thursday June 6, 2019 and during the Saturday midday peak period (11:00 AM to 1:00 PM) on Saturday, June 8, 2019.

A review of the traffic counts collected on Thursday, May 30, 2019 indicated an abnormal traffic pattern involving vehicles on Cabot Street (Route 22). Further investigation revealed that a partial road closure and vehicle detour occurred on Cabot Street (Route 22) just east of Route 1A on the day that the weekday PM counts were conducted. GPI performed a spot count during the weekday PM peak hour (4:00 PM to 5:00 PM) on Thursday, June 13, 2019 to confirm “normal” travel patterns where no detours were in place. The following describes the traffic patterns that were observed and the corresponding adjustments that were made to the traffic volumes.

Route 1A Northbound Traffic

A significant portion of northbound traffic that would normally take a right-turn onto Cabot Street (Route 22) was detoured further up Route 1A, through the intersection with School Street, where they then exited the study area before returning to Cabot Street. It was also determined that a disproportionate number of Route 1A northbound traffic chose to make a right-turn onto Water Street in an attempt to avoid the cluster signal intersections. The counts collected on June 13 without the detour on the Route 1A northbound approach to Cabot Street (Route 22) were utilized to represent normal conditions. The through volumes at the Route 1A intersections with School Street and Water Street were then balanced to match the Cabot Street (Route 22) intersection. The sum of all northbound volumes at the Cabot Street (Route 22) intersection was 207 vehicles higher on June 13 than on May 30, indicating that 207 vehicles were using Water Street as a detour route instead of continuing up Route 1A to reach Cabot Street (Route 22) during the detour. Therefore,

these 207 vehicles were removed from the Route 1A northbound right-turn volume onto Water Street collected on May 30.

Route 1A Southbound Traffic

A portion of traffic that would normally take make the westbound left-turn onto Route 1A from Cabot Street (Route 22) were detoured to make a right-turn onto School Street and then a left-turn onto Route 1A to continue south during the count on May 30. A review of the Saturday counts from June 1 indicated that no vehicles made the left-turn from School Street to Route 1A without the presence of the detour; however 79 vehicles made this movement during the PM peak hour with the detour in place. Therefore, these 79 vehicles were removed from the School Street westbound left-turn at Route 1A and added to the Cabot Street (Route 22) westbound left-turn at Route 1A to represent normal traffic operations without a detour.

Seasonal Adjustment

Traffic on a given roadway typically fluctuates throughout the year depending on the area and the type of roadway. To determine if the May and June traffic-volume data needed to be adjusted to account for this fluctuation, traffic-volume data from Massachusetts Department of Transportation (MassDOT) Permanent Count Stations in the area were researched.¹ Based on the MassDOT traffic-volume data, traffic volumes during the month of May and June are typically 4.2 and 9.0 percent higher than average-month conditions, respectively. Therefore, the May and June unadjusted traffic volumes were utilized to provide a conservative (worse-case) representation of average-month conditions. The MassDOT seasonal adjustment data are provided in the Appendix.

Table 1 summarizes the existing daily and peak-hour traffic volumes on Water Street adjacent to the site. The 2019 Existing traffic-flow networks for the weekday PM, and Saturday midday peak hours are shown graphically on Figure 2.

¹*MassDOT Traffic Volumes*; Permanent Count Stations 35 – Route 128 north of Brimble Avenue (Beverly), 5557 – Route I-95 south of Route 62 (Danvers), 5558 – Route I-95 north of Route 62 (Danvers), 5048 – Route I-95 north of Route 1 (Topsfield).

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Table 1
EXISTING TRAFFIC VOLUME SUMMARY – AVERAGE-MONTH CONDITIONS

Location/Time Period	Daily Volume (vpd) ^a	Peak Hour Volume (vph) ^b	K Factor (%) ^c	Directional Distribution ^d
Water Street east of Front Street:				
<i>Weekday</i>	4,440			
<i>Weekday AM Peak Hour</i>	--	375	8.4	52% EB
<i>Weekday PM Peak Hour</i>	--	410	9.2	56% EB
<i>Saturday</i>	4,260			
<i>Saturday Midday Peak Hour</i>	--	330	7.7	60% EB

^a In vehicles per day.^b In vehicles per hour.^c Percentage of daily traffic occurring during the peak hour.^d EB = eastbound, WB = westbound.

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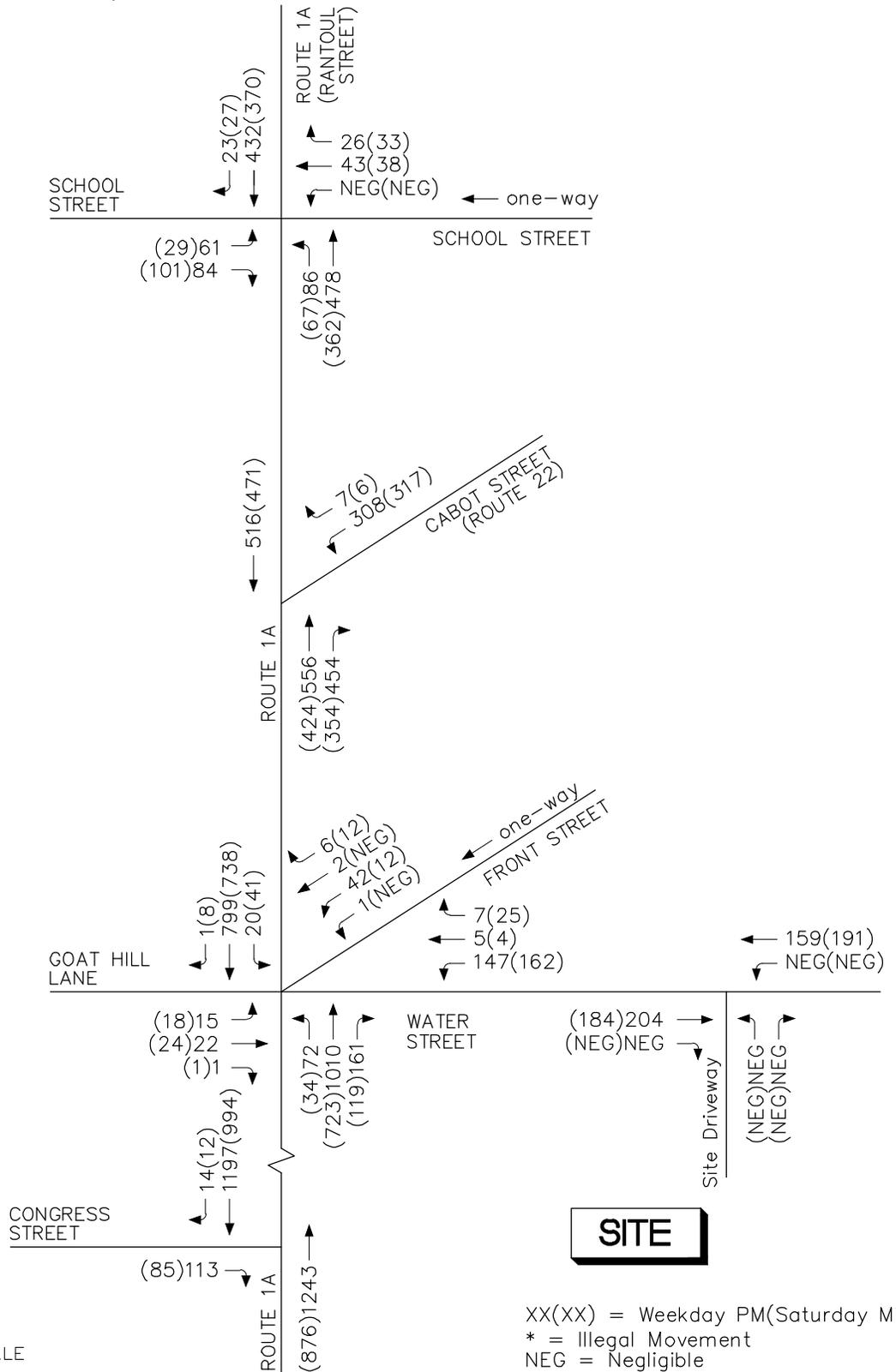


Figure 2
 2019 Existing Conditions
 Peak Hour Traffic Volumes

Collisions

Collision data for the study area intersections was obtained from the MassDOT for the most recent available five-year period (2013 through 2017). A summary of the crashes at these intersections is provided in Table 2.

In addition to the collision summary, crash occurrence also should be compared to the volume of traffic through a particular intersection or on a particular classification of roadway to determine any significance. Accordingly, the crash rate was calculated for the study area intersections and compared with the statewide and district-wide averages. An intersection crash rate is a measure of the frequency of collisions compared to the volume of traffic through an intersection and is presented in crashes per million entering vehicles (c/mev). For unsignalized intersections, the statewide average and the District 4 average is 0.57 c/mev. For signalized intersections, the statewide average is 0.78 c/mev and the District 4 average is 0.73 c/mev. A comparison of the calculated crash rate to these averages can be used to establish the significance of collision occurrence and whether or not potential safety problems exist. All crash rate worksheets are provided in the Appendix.

The intersection of Rantoul Street (Essex Bridge / Cabot Street) at / Water Street / Front Street / Goat Hill Lane experienced an average of 7.8 collisions per year over the five-year study period, and a crash rate of 0.99 c/mev, which is higher than the statewide (0.78 c/mev) and District 4 (0.73 c/mev) averages. The majority of the collisions (16 of 39) were angle collisions, which may have been the result of permitted left-turn phasing on the side streets and driver confusion on the geometry of the roadway. Disregard of the traffic control device was noted as a contributing cause in several angle collisions, indicating poor visibility of traffic signals and/or driver frustration due to congestion during peak hours may be contributing to angle collisions. MassDOT is currently at the 75 percent design stage of geometric improvements which will address operational and safety issues at this intersection, as well as the Rantoul Street (Route 1A) / Cabot Street (Route 1A / Route 22) intersection. These improvements include modifications to the geometry and traffic control at the intersection, and are anticipated to reduce collisions.

The remaining intersections experienced fewer than three collisions per year and a crash rate below the statewide and District-wide averages, indicating a safety issue does not exist.

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**Table 2
COLLISION SUMMARY**

Location	Number of Collisions			Severity ^a				Collision Type ^b						Percent During	
	Total	Average per Year	Crash Rate ^c	PD	PI	F	NR	SS	RE	CM	HO	SV	Ped/Bike	Commuter Peak ^d	Wet/Icy Conditions ^e
Route 1A (Essex Bridge / Cabot St.) / Water St. / Front St. / Goat Hill Ln.	39	7.80	0.99	27	11	--	1	5	10	16	2	5	1	21%	36%
Route 1A (Cabot St.) / Route 22 (Cabot St.)	17	3.40	0.61	11	4	--	2	4	3	3	--	6	1	12%	41%
Route 1A (Rantoul St.) / School St.	11	2.20	0.45	8	1	--	2	1	4	5	1	--	--	18%	18%
Route 1A (Essex Bridge) / Congress St.	3	0.60	0.06	2	1	--	--	2	--	--	--	--	1	33%	0%

Source: MassDOT (2013-2017).

^a PD = property damage only; PI = personal injury; F = fatality, NR = not reported.

^b SS = sideswipe; RE = rear end; CM = cross movement/angle; HO = head on; SV = single vehicle; PED = Pedestrian/Bicycle.

^c Measured in crashes per million entering vehicles for intersections.

^d Percent of vehicle incidents that occurred during the weekday AM (7:00 AM-9:00 AM) and weekday PM (4:00 PM-6:00 PM) commuter peak periods.

^e Represents the percentage of only “known” collisions occurring during inclement weather conditions.

Vehicle Speeds

Vehicle speed measurements were conducted along Water Street by measuring the elapsed time for vehicles traveling a short, pre-measured distance between two checkpoints. The travel times were recorded using ATRs and the speeds were derived by dividing the elapsed time into the measured distance between checkpoints. The primary use of this information is explained in the *Sight Distance* section where the speeds are correlated to sight distance measurements taken at the location of the site driveways to assure that adequate sight distances exist at the driveways to provide safe operation. The results of the speed measurements are summarized in Table 3.

Table 3
OBSERVED TRAVEL SPEEDS ^a

Location/Direction	Posted Speed Limit ^a	Average Speed ^b	85 th Percentile Speed ^c
Water Street adjacent to site:			
<i>Eastbound</i>	25	25	28
<i>Westbound</i>	25	24	28

^a In miles per hour (MPH).

^b Average speed of all observed vehicles.

^c Speed at, or below which 85 percent of all observed vehicles travel.

As shown in Table 3, the average speeds along Water Street were found to be 24-25 miles per hour (MPH), while the 85th percentile speeds were 28 MPH. The observed speeds were found to be generally consistent with the posted speed limits of 25 MPH.

Sight Distance

To identify potential safety concerns associated with site access and egress, sight distances have been evaluated at the unsignalized study area intersections to determine if the available sight distances for vehicles exiting the site meet or exceed the minimum distances required for approaching vehicles to safely stop. The available sight distances were compared with minimum requirements, as established by the American Association of State Highway and Transportation Officials (AASHTO)².

²A *Policy on Geometric Design of Highways and Streets; 7th Edition*; American Association of State Highway and Transportation Officials (AASHTO); 2018.

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Stopping Sight Distance (SSD) is the minimum distance required for a vehicle traveling at a certain speed to safely stop before reaching a stationary object in the road. The values are based on a driver perception and reaction time of 2.5 seconds and a braking distance calculated for wet, level pavements. When the roadway is either on an upgrade or downgrade, grade correction factors are applied. Stopping sight distance is measured from an eye height of 3.5 feet to an object height of 2 feet above street level.

Intersection sight distance (ISD) is the minimum distance required for a motorist exiting a minor street to turn onto the major street, without being overtaken by an approaching vehicle reducing its speed from the design speed to 70 percent of the design speed. Intersection sight distance is measured from an eye height of 3.5 feet to an object height of 3.5 feet above street level.

SSD is generally more important as it represents the minimum distance required for safe stopping while ISD is based only upon acceptable speed reductions to the approaching traffic stream. However, the ISD must be equal to or greater than the minimum required SSD in order to provide safe operations at the intersection. The available SSD and ISD at the site driveway was measured and compared to minimum requirements as established by AASHTO as shown in Table 4.

Table 4
SIGHT DISTANCE SUMMARY

Location / Direction	Stopping Sight Distance (feet)		Intersection Sight Distance (feet)		
	Measured	Minimum Required ^a	Measured	Minimum Required ^a	Desirable ^b
Water Street at Proposed Site Driveway					
<i>Looking east (westbound)</i>	+500	180	475	180	280
<i>Looking west (eastbound)</i>	To Route 1A	180	To Route 1A	180	240

^a Values based on AASHTO requirements for minimum SSD based on 85th percentile speeds of 28 MPH.

^b Values based on AASHTO requirements for ISD for posted speed of 25 MPH on Water Street.

As indicated in Table 4, the sight distances at the proposed site driveway will exceed AASHTO's recommendations for minimum and desirable SSD and ISD. It is recommended that any proposed plantings, vegetation, landscaping, and signing along the site frontage be kept low to the ground (no more than 3.0 feet above street level) or set back sufficiently from Water Street so as not to inhibit the available sight lines.

FUTURE CONDITIONS

To estimate the impact of site-generated traffic within the study area, existing traffic volumes were projected to the year 2026, representing a seven-year design horizon in accordance with state guidelines. The proposed development is expected to be completed and fully operational well within this time frame. Traffic volumes on the roadway network at that time will include existing traffic and new traffic due to normal traffic growth. Consideration of these factors resulted in the development of 2026 No-Build traffic volumes, which assume that the proposed development is not built. The incremental impacts of the proposed project may then be determined by adding site-generated traffic volumes (Build conditions) and making comparisons to the No-Build conditions.

Traffic Growth

To develop the 2026 No-Build (seven-year) forecast volumes, two components of traffic growth were considered. First, an annual growth percentage was determined. Based on historic traffic-volume counts provided by MassDOT, traffic volumes in the area have been increasing at a rate of approximately 0.2 percent per year.³ Therefore, to provide a conservative (worse than expected) analysis scenario, a 0.5 percent compounded annual growth was assumed for the project area. The MassDOT adjustment data are provided in the Appendix.

Second, any planned or approved specific developments in the area that would generate a significant volume of traffic on study area roadways within the next seven years were considered. Based on discussions with the Planning Department, the following projects were identified:

- 110-114 Rantoul (Beverly Homes) – This project consists of constructing a 67-unit apartment building and approximately 4,500 SF of retail/commercial space. At the time of the data collection, this project was fully constructed and estimated to be mostly occupied. Any additional trips as a result of this project has been accounted for by the conservative annual growth rate.
- 268B Cabot Street – This project consists of redeveloping an existing building to provide an additional 2-unit apartments and approximately 5,000 SF of retail/commercial space. There was no traffic study submitted to the City for this project. Because of the anticipated negligible impact on the study area, it has been assumed that any increase in traffic as a result of this project has been accounted for by the conservative annual growth rate.
- 211 Rantoul Street – This project consists of redeveloping the former Kelly Ford dealership with constructing a mixed-use development with a total of 128 residential apartment units

³MassDOT Transportation Data Management System; Beverly, MA.

and ±9,600 SF mixed-use⁴. This project is currently under construction but is anticipated to begin occupancy prior to 2021. The site-generated trips associated with this project are illustrated in Figures A-1 and A-2 in the Appendix for the weekday PM and Saturday midday peak hours, respectively.

- 132 Rantoul Street (Depot Square II) – This project consists of redeveloping the block contained by Rantoul Street (Route 1A), Pleasant Street, Park Street, and Railroad Avenue, which consists of ±9,300 SF of mixed-use buildings, a former 26-unit apartment building, and a ±2,800 SF Enterprise Rent-A-Car. The project consists of razing the existing buildings on-site and constructing a new mixed-use building containing 7,975 SF of retail/restaurant space and 115 residential units. The project is currently in the approvals process with the Beverly Planning Board. The site-generated trips associated with this project were obtained from the *Traffic Impact and Access Study*⁵ for the project, and are illustrated in Figures A-1 and A-2 in the Appendix for the weekday PM and Saturday midday peak hours, respectively.

Planned Roadway Improvements

The City of Beverly and MassDOT are in the process of redesigning the Rantoul Street (Route 1A) / Cabot Street (Route 22) and Cabot Street (Route 1A) / Water Street / Front Street / Goat Hill Lane signalized intersections (MassDOT Project No. 608347). This project seeks to address the issues of traffic congestion, safety, Americans with Disabilities Act (ADA) design compliance, bicycle accommodations, and general pavement condition. The project is currently in the 75% design stage⁶ and a Functional Design Report was submitted with the 25% design plans in 2015⁷. The project includes the reconstruction of the Rantoul Street (Route 1A) / Cabot Street (Route 1A / Route 22) / Water Street intersection to provide new traffic signal equipment, reduce pavement widths, and shorten pedestrian crossing distances. The right-turn slip-lane from Essex Bridge (Route 1A) to Cabot Street (Route 22) will be eliminated. Bicycle lanes and accommodations will be provided throughout the project limits. Construction of the project is anticipated to begin in the Spring of 2020. Therefore, GPI has included the proposed geometric and signal improvements within the analysis of the 2026 No-Build and Build conditions.

⁴ *Traffic Impact and Access Study – Proposed 211 Rantoul Street Redevelopment*; Greenman-Pedersen, Inc.; July 2017.

⁵ *Traffic Impact and Access Study – Depot Square II, Beverly, Massachusetts*; Greenman-Pedersen, Inc.; June 2019.

⁶ *75% Submittal – Intersection Improvements at Three Locations*; World Tech Engineering; April 2019.

⁷ *Functional Design Report – Reconstruction of Three Intersections in Beverly*; World Tech Engineering; October 2015.

No-Build Conditions

The 2026 No-Build networks were accordingly developed by applying a compounded 0.5 percent annual traffic growth rate (3.6 percent over seven years) to the 2019 Existing traffic volumes and adding the traffic generated by the other development projects. The 2026 No-Build peak-hour traffic-flow networks are shown graphically on Figure 3 for the weekday PM and Saturday midday peak hours.

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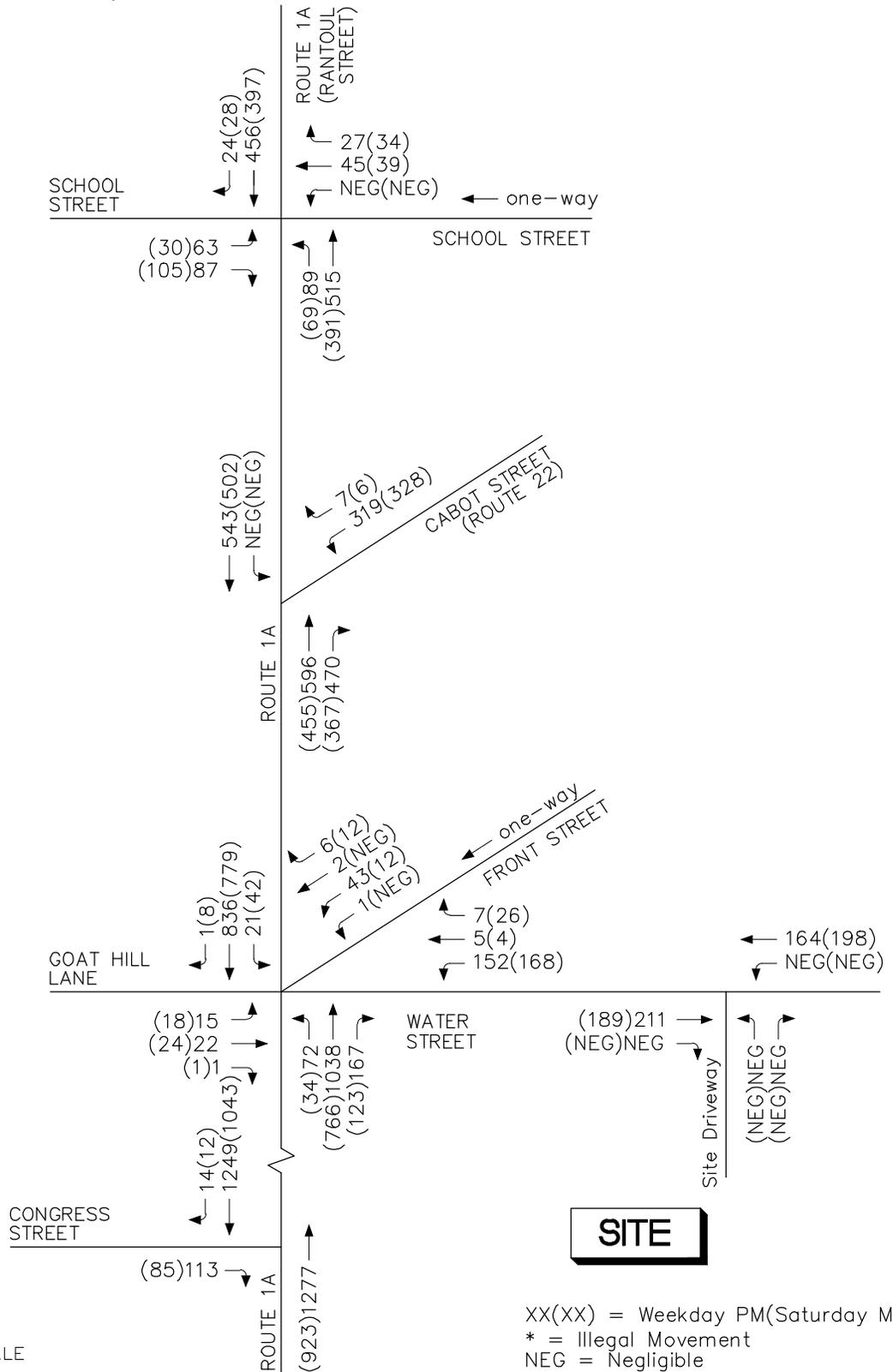


Figure 3

2026 No-Build Conditions
 Peak Hour Traffic Volumes

Trip Generation

The project consists of razing the existing structure on site and constructing a ±6,800 square foot (SF) quality restaurant with three floors and 350 seats. The first floor of the restaurant building will contain a ±730 SF bar/lounge with 12 seats, a ±600 SF snack shop, and ±250 SF waterfront retail building for boat tours and rentals to provide amenities to patrons of the waterfront area. The upper floors of the restaurant will contain 338 seats with a mix of indoor and outdoor seating and function space. To estimate the volume of traffic to be generated by the proposed 350-seat restaurant, trip generation rates published by the Institute of Transportation Engineers (ITE) *Trip Generation Manual*⁸ were used for Land Use Code (LUC) 931 – Quality Restaurant. ITE trips rates for LUC 933 – Fast-Food Restaurant without Drive-Through Window were used to estimate trips generated by the proposed waterfront snack shop. The waterfront retail building is intended to serve as an amenity to the waterfront patrons who are already traveling to the area and is not anticipated to generate any new vehicle trips to the area. All trip-generation data are provided in detail in the Appendix.

Pass-By Trips

Studies have shown that for retail and restaurant developments, a substantial portion of the site-generated vehicle trips are already present in the adjacent passing stream of traffic or are diverted from another route to the proposed site. For example, some vehicles which are already on the roadways may decide to visit the site on their way to another destination. Based on information published in the ITE *Trip Generation Handbook*, the average *pass-by* trip percentage is 44 percent for LUC 931 – Quality Restaurant and was assumed to be 43 percent for LUC 933 – Fast-Food Restaurant without Drive-Through Window based on rates for LUC 932 – High-Turnover (Sit-Down) Restaurant.

Transit Trips

The MBTA and CATOC provide bus service along Rantoul Street (Route 1A) in the vicinity of the site. In addition, the site is located within 0.5 miles of the Beverly Depot MBTA Commuter Rail Station. The availability of public transportation for access to the site has the potential to reduce the number of passenger vehicle trips traveling to/from the site. In order to provide a conservative (worse case) scenario, no credit was taken for the purposes of analyses.

Walking and Bicycling Trips

The proposed restaurant is located within close proximity to multiple retail, restaurant and commercial developments, as well as the waterfront. In addition, a strong sidewalk network on the surrounding area roadways provides pedestrian connections between the site and these establishments. It is reasonable to expect that a portion of the trips to/from the site will be walking

⁸ *Trip Generation Manual*, 10th Edition; Institute of Transportation Engineers; Washington, DC; 2017.

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and bicycling trips, reducing the number of passenger vehicle trips to/from the site. In addition, the proposed snack shop is intended to serve as an amenity to patrons already visiting the waterfront and will likely receive most of its business from waterfront patrons walking to the snack shop. Therefore, a 50 percent reduction was applied to the trips generated by the snack shop to account for waterfront patrons walking to the facility. To provide a conservative (worse case) analysis condition, no walking/biking credit was applied for trips generated by the 350-seat restaurant and waterfront bar.

Table 5 summarizes the results of the proposed trip generation estimate. All trip generation calculations are provided in the Appendix.

Table 5
PROPOSED TRIP-GENERATION SUMMARY

Time Period/Direction	Total Trips ^a	Walking/Biking Trips ^b	Pass-By Trips ^c	New Primary Trips ^d
Weekday Daily	1,118	104	444	570
Weekday PM Peak Hour:				
<i>Enter</i>	74	4	24	46
<i>Exit</i>	<u>41</u>	<u>5</u>	<u>24</u>	<u>12</u>
<i>Total</i>	115	9	48	58
Saturday Daily	1,318	210	486	622
Saturday Midday Peak Hour:				
<i>Enter</i>	84	8	29	47
<i>Exit</i>	<u>65</u>	<u>9</u>	<u>29</u>	<u>27</u>
<i>Total</i>	149	17	58	74

^a Total Development Trips based on LUC 931 for 350 seats, and LUC 933 for 600 SF.

^c 50% walking/biking credit applied for snack shop (LUC 933) trips assumed already on the network.

^c 44% pass-by rate applied for quality restaurant (LUC 931) trips and a 43% pass-by rate applied for snack shop (LUC 933) trips assumed already on the network based on ITE Trip Generation Handbook 3rd Edition.

^d Total Trips minus Walking/Biking Trips and Pass-By Trips.

As shown in Table 5, the proposed development is expected to generate 58 new vehicle trips (46 entering and 12 exiting) during the weekday PM peak hour and 74 new trips (47 entering and 27 exiting) during the Saturday midday peak hour. It should be noted that the volume of pass-by traffic does not reduce the total volume of traffic generated by the development and the external trips will still be realized as turning movements at the site driveway.

Trip Distribution

Having estimated project-generated vehicle trips, the next step is to determine the distribution of project traffic and assign these trips to the local roadway network. The distribution of site-generated trips was based on existing travel patterns in the surrounding area and anticipated travel routes to/from the site. Table 6 shows the primary trip distribution for the proposed restaurant.

**Table 6
TRIP-DISTRIBUTION SUMMARY**

<u>Direction</u>	<u>Percentage Trips to/from</u>
Route 1A to/from North	25
Route 1A to/from South	50
Water Street to/from East	10
<u>Route 22 to/from North</u>	<u>15</u>
Total	100

It should be noted that the site is proposed to contain a total of 60 parking spaces to accommodate the restaurant and other waterfront uses. An additional 53 parking spaces are located off-site in the Creamery Lot and 11 Cabot Street Lot. The site-generated vehicle trips were distributed to these two parking areas based on a ratio of the number of parking spaces provided in each area.

Build Traffic Volumes

Based on the traffic generation and distribution estimates for this project, the traffic volumes associated with the proposed development were assigned to the roadway network. The site-generated traffic networks are shown on Figures 4A and 4B for the weekday PM and Saturday midday peak hours, respectively. The site-generated traffic volumes were then combined with the 2026 No-Build traffic volumes to develop the 2026 Build peak-hour traffic-volume networks. The 2026 Build weekday PM and Saturday midday peak hour traffic volumes are illustrated on Figure 5.

Traffic Increases

The proposed development will result in increases in traffic on the study area roadways. As shown on Figures 4A-4B, traffic-volume increases along Route 1A beyond the study area during the peak

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hours are expected to be in the range of 15 to 36 vehicles. These increases represent, on average, one additional vehicle approximately every 1.5 to four minutes during the peak hours.

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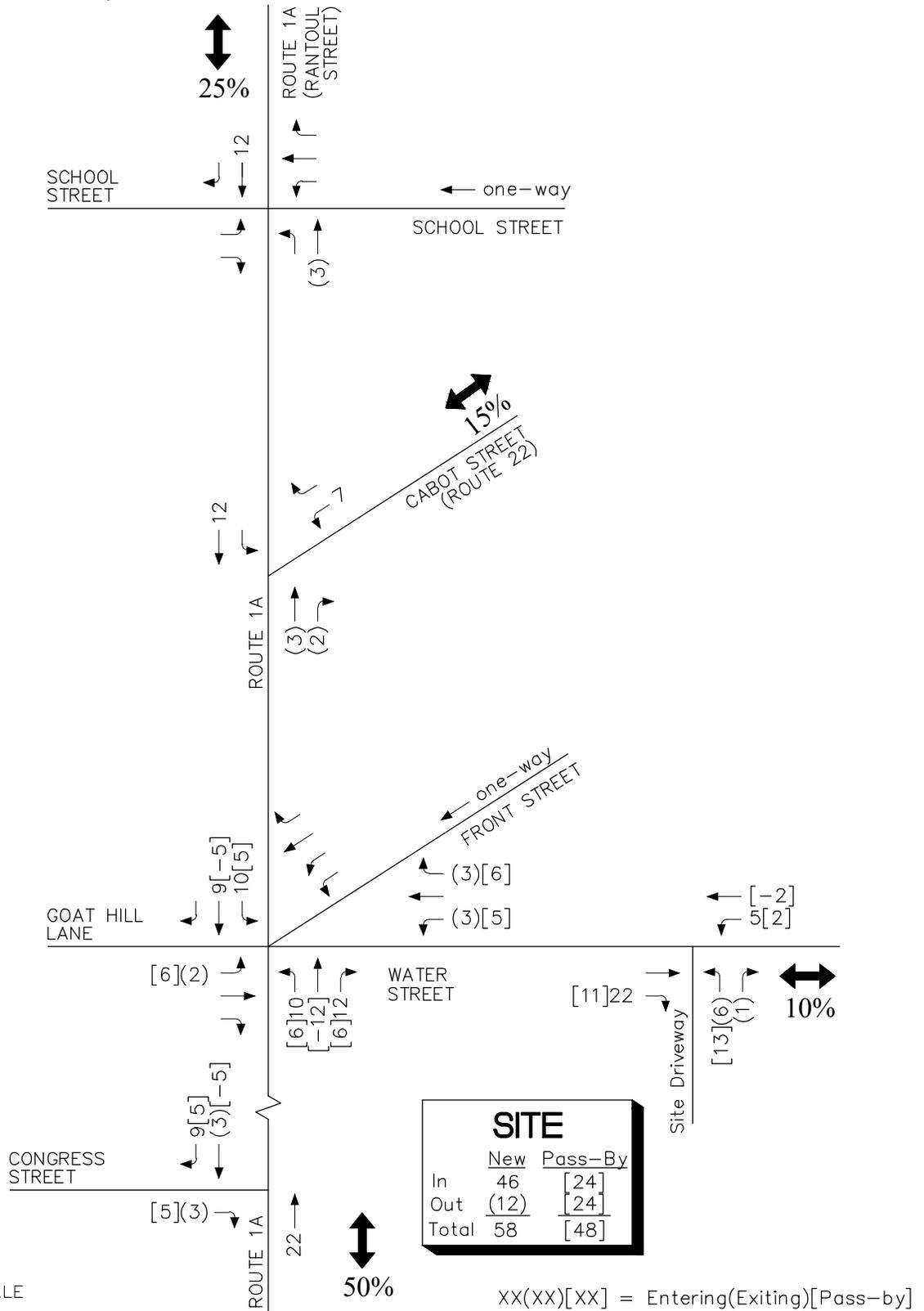
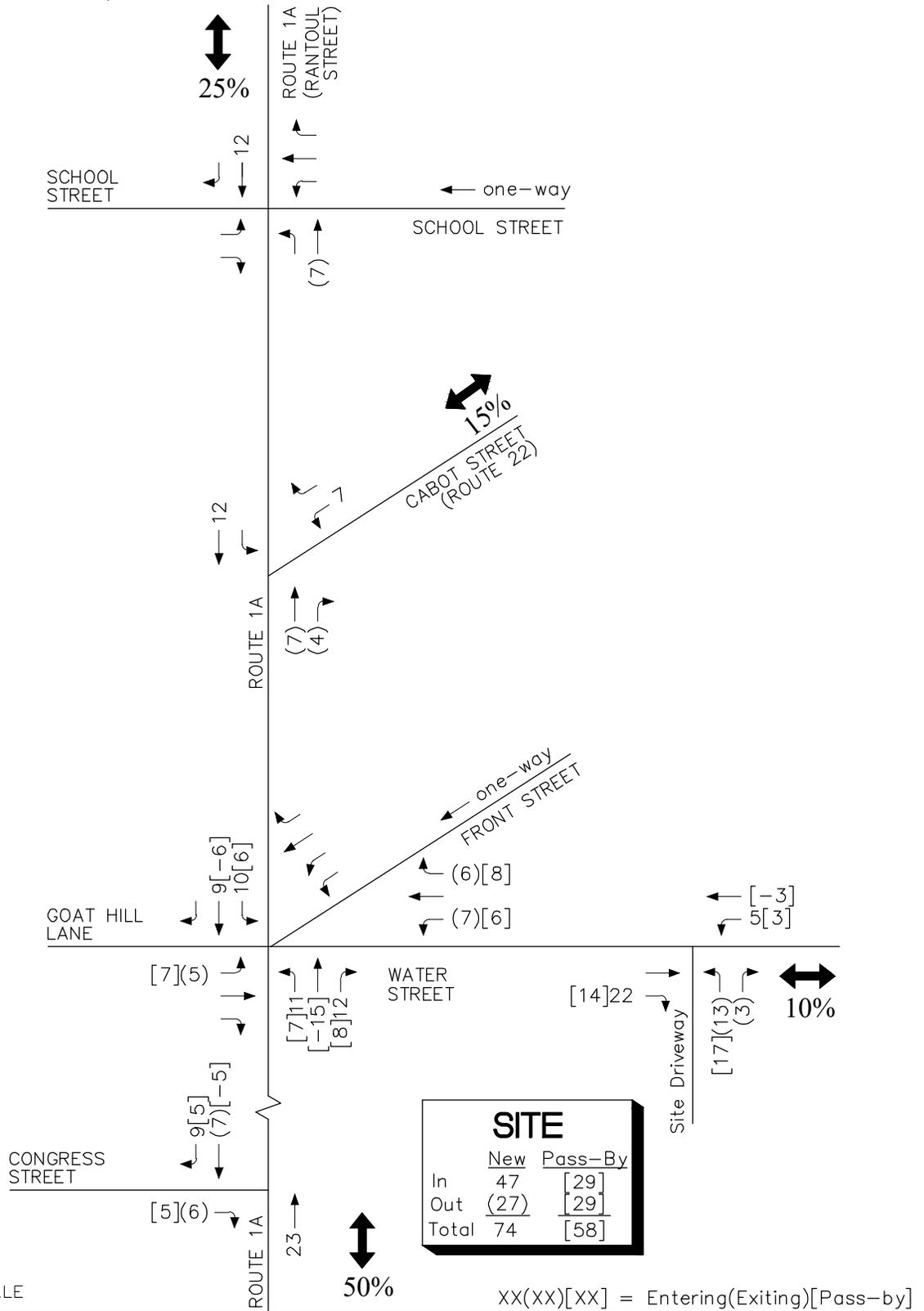


Figure 4A

Site-Generated Trips - Weekday PM Peak Hour Traffic Volumes

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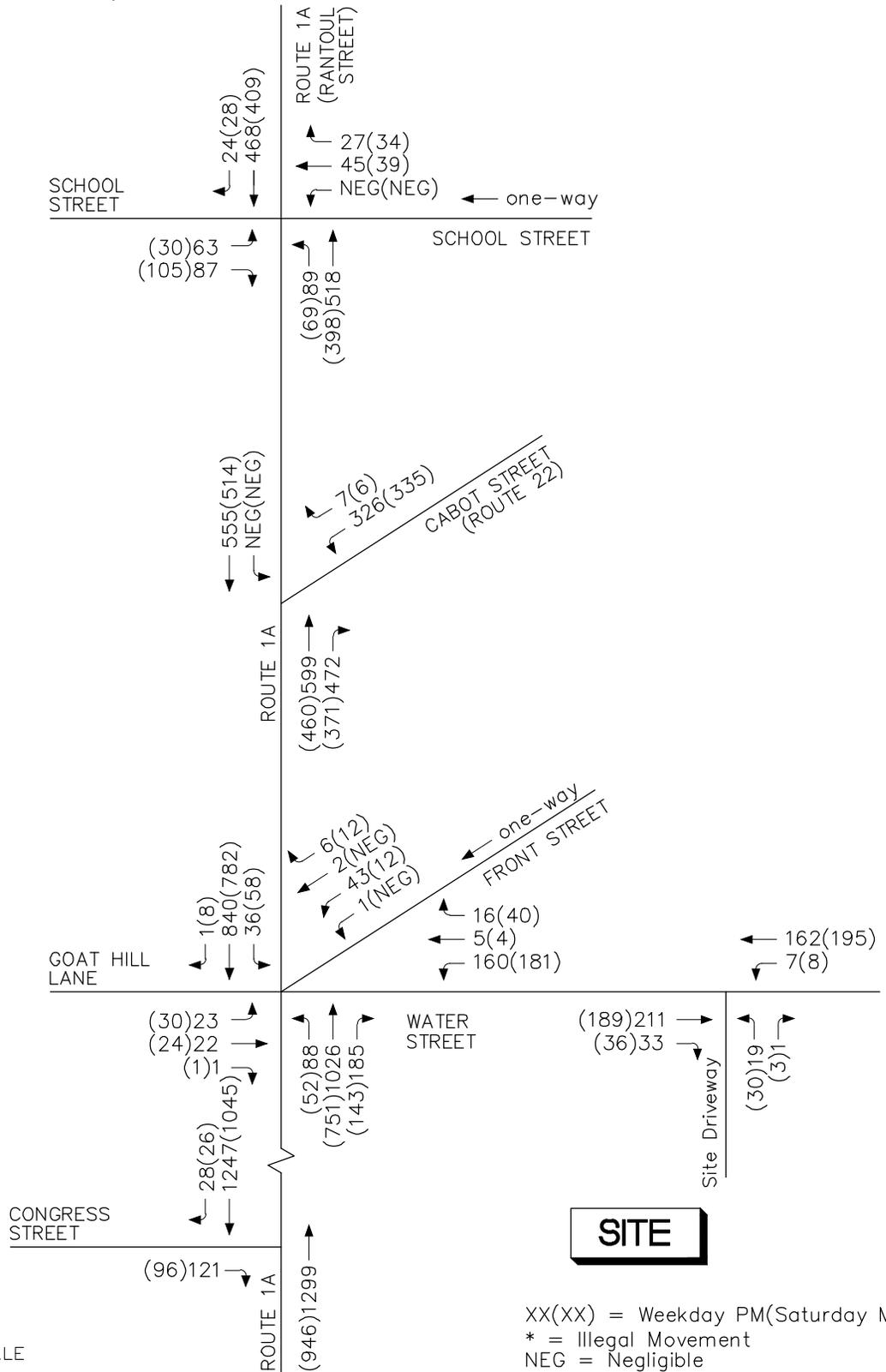
NOT TO SCALE

Figure 4B

Site-Generated Trips - Saturday Midday Peak Hour Traffic Volumes

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NOT TO SCALE

XX(XX) = Weekday PM(Saturday Middy)
 * = Illegal Movement
 NEG = Negligible

Figure 5

2026 Build Conditions
 Peak Hour Traffic Volumes

CAPACITY AND QUEUE ANALYSIS

Capacity and queue analyses were conducted at all study area locations under 2019 Existing, 2026 No-Build, and 2026 Build traffic-volume conditions. The impact of site-generated traffic can be measured by comparing 2026 No-Build conditions to 2026 Build conditions.

Methodology

The capacity analysis methodology is based on the concepts and procedures in the *Highway Capacity Manual* (HCM)⁹ and is described in the Appendix. The TIAS utilizes the *Synchro* Percentile Delay methodology for signalized intersections since *HCM 6th Edition* does not analyze exclusive pedestrian signal phasing or cluster intersections provided at the signalized study area intersections. MassDOT has recognized such inefficiencies with the HCM 6th Edition method and accepts the Percentile Delay results. The TIAS utilizes the HCM 6th Edition methodology for unsignalized intersections as it is the most recently previously approved method. Capacity and queue analyses were conducted at the study area intersections utilizing *Synchro* software.¹⁰

For signalized intersections, the maximum back of queue during a typical (average) signal cycle and a 95th percentile signal cycle was calculated for each lane group during the peak periods studied. The back of queue is the length of a backup of vehicles from the stop line of a signalized intersection to the last vehicle in the queue that is required to stop, regardless of the signal indication. The length of this queue depends on several factors including signal timing, vehicle arrival patterns, and the saturation flow rate. For unsignalized intersections, the 95th percentile queue represents the length of queue of the critical minor-street movement that is not expected to be exceeded 95 percent of the time during the analysis period (typically one hour). In this case, the queue length is a function of the capacity of the movement and the movement's degree of saturation.

Analysis Results

The results of the level-of-service (LOS) and queue analyses are shown in Table 7 and are discussed below.

Rantoul Street (Route 1A) / Cabot Street (Route 22)

All movements at this intersection are anticipated to operate at LOS E or better under all analysis conditions. In addition, the volume-to-capacity (V/C) ratios will be well below 1.00, indicating

⁹ *Highway Capacity Manual 6th Edition*, Transportation Research Board; Washington, D.C.; 2016.

¹⁰ *Synchro plus SimTraffic 10*; Trafficware Ltd.; Sugar Land, TX; 2017.

there will be adequate capacity to accommodate the anticipated traffic volumes. The additional traffic generated by the proposed mixed-use development is not expected to increase delay on any given movement by more than five (5) seconds per vehicle or increase queues by more than one vehicle on any approach.

Cabot Street (Route 1A) / Water Street / Front Street / Goat Hill Lane

Although the Water Street westbound approach is anticipated to operate at LOS F during the weekday PM peak hour under 2026 No-Build and Build conditions, the V/C ratio will be well below 1.00, indicating adequate capacity exists to accommodate the anticipated traffic volumes. In addition, the queues on this approach are not expected to exceed six vehicles. The LOS F is the direct result of the long cycle length created by the cluster intersection configuration (two signalized intersections controlled by one traffic signal controller), and not by the lack of capacity. The additional traffic generated by the Project is not expected to increase delay on this approach by more than six (6) seconds per vehicle or increase queues by more than one vehicle. All other movements at the intersection are anticipated to operate at LOS D or better under all analysis conditions.

Water Street at Site Driveway

All movements at the site driveway are anticipated to operate at LOS B or better with queues not exceeding one vehicle and V/C ratios well below 1.00, indicating there will be adequate capacity to accommodate the anticipated traffic volumes.

All movements at the remaining study area intersections are not anticipated to experience an increase in delay of more than one (1) second per vehicle as a result of the proposed project and are anticipated to operate at LOS D or better under all analysis conditions.

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**Table 7
INTERSECTION CAPACITY ANALYSIS SUMMARY**

Intersection/Peak Hour/Lane Group	2019 Existing				2026 No-Build				2026 Build			
	V/C ^a	Delay ^b	LOS ^c	Queue ^d	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue
Route 1A / School Street												
<i>Weekday PM:</i>												
School Street EB Approach	0.63	36.7	D	56/115	0.64	37.0	D	59/118	0.64	37.0	D	59/118
School Street WB Approach	0.29	29.0	C	27/64	0.29	29.7	C	29/67	0.29	29.7	C	29/67
Route 1A NB Approach	0.58	16.7	B	242/427	0.63	18.5	B	275/497	0.64	18.9	B	278/518
Route 1A SB Approach	0.40	11.9	B	161/276	0.42	12.4	B	175/300	0.43	12.6	B	181/310
Overall Intersection	0.81	17.9	B	--/--	0.84	19.0	B	--/--	0.85	19.2	B	--/--
<i>Saturday Midday:</i>												
School Street EB Approach	0.17	13.2	B	<25/61	0.38	14.1	B	<25/66	0.38	14.3	B	<25/67
School Street WB Approach	0.17	18.5	B	<25/54	0.21	20.1	C	<25/59	0.21	20.5	C	<25/60
Route 1A NB Approach	0.51	14.3	B	42/245	0.55	14.1	B	47/269	0.56	14.0	B	48/274
Route 1A SB Approach	0.51	12.5	B	36/210	0.46	12.2	B	40/227	0.47	12.1	B	42/235
Overall Intersection	0.70	13.8	B	--/--	0.73	13.8	B	--/--	0.74	13.7	B	--/--

^a Volume-to-capacity ratio.

^b Average control delay in seconds per vehicle.

^c Level of service.

^d 50th/95th percentile queue length in feet per lane (assuming 25 feet per vehicle).

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Table 7 (continued)
INTERSECTION CAPACITY ANALYSIS SUMMARY

Intersection/Peak Hour/Lane Group	2019 Existing				2026 No-Build				2026 Build			
	V/C ^a	Delay ^b	LOS ^c	Queue ^d	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue
Route 1A / Cabot Street (Route 22)												
<i>Weekday PM:</i>												
Cabot Street WB L/R	0.61	75.4	E	200/288	0.23	16.7	B	69/98	0.23	16.7	B	71/100
Route 1A NBT	0.87	24.8	C	815/934	0.87	39.5	D	129/655	0.88	44.6	D	135/658
Route 1A NBR	0.62	14.9	B	<25/<25	0.50	29.3	C	177/328	0.50	28.7	C	178/320
Route 1A SB Approach	0.79	117.8	F	662/>999	0.83	50.5	D	352/603	0.85	55.5	E	372/626
Overall Intersection	0.48	57.1	E	--/--	0.70	36.2	D	--/--	0.71	39.1	D	--/--
<i>Saturday Midday:</i>												
Cabot Street WB L/R	0.60	71.5	E	191/276	0.22	13.0	B	58/84	0.22	13.0	B	59/85
Route 1A NBT	0.70	16.8	B	62/755	0.79	30.0	C	107/457	0.81	33.3	C	117/49
Route 1A NBR	0.50	3.2	A	<25/<25	0.40	18.4	B	115/253	0.40	17.1	B	110/237
Route 1A SB Approach	0.66	64.5	E	532/801	0.90	52.3	D	313/573	0.93	57.1	E	326/591
Overall Intersection	0.44	39.3	D	--/--	0.61	30.8	C	--/--	0.62	32.9	C	--/--

^a Volume-to-capacity ratio.

^b Average control delay in seconds per vehicle.

^c Level of service.

^d 50th/95th percentile queue length in feet per lane (assuming 25 feet per vehicle).

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Table 7 (continued)
INTERSECTION CAPACITY ANALYSIS SUMMARY

Intersection/Peak Hour/Lane Group	2019 Existing				2026 No-Build				2026 Build			
	V/C ^a	Delay ^b	LOS ^c	Queue ^d	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue
Route 1A / Water Street / Front Street / Goat Hill Lane												
<i>Weekday PM:</i>												
Goat Hill Lane EB Approach	0.12	60.4	E	41/82	0.18	42.4	D	<25/59	0.24	44.9	D	29/68
Water Street WB Approach	0.84	107.0	F	268/392	-	-	-	-	-	-	-	-
Water Street WBL	-	-	-	-	0.65	59.9	E	76/156	0.63	57.5	E	85/160
Water Street WB L/T/R	-	-	-	-	0.62	108.1	F	73/145	0.63	113.7	F	77/151
Route 1A NBL	0.61	103.3	F	94/168	0.18	4.9	A	<25/<25	0.23	5.2	A	<25/29
Route 1A NB T/R	0.96	72.5	E	>999/>999	0.65	16.8	B	283/415	0.66	17.1	B	295/418
Route 1A SBL	0.19	77.6	E	<25/32	0.08	1.9	A	<25/<25	0.14	2.4	A	<25/<25
Route 1A SB T/R	0.46	1.9	A	<25/<25	0.45	10.3	B	50/89	0.45	11.4	B	52/90
Overall Intersection	0.71	51.9	D	--/--	0.66	20.5	C	--/--	0.65	21.5	C	--/--
<i>Saturday Midday:</i>												
Goat Hill Lane EB Approach	0.14	59.1	E	42/85	0.21	39.0	D	<25/61	0.29	42.5	D	31/74
Water Street WB Approach	0.83	89.7	F	249/367	-	-	-	-	-	-	-	-
Water Street WBL	-	-	-	-	0.63	53.3	D	71/144	0.64	52.3	D	82/160
Water Street WB L/T/R	-	-	-	-	0.54	57.8	E	55/123	0.56	59.6	E	57/129
Route 1A NBL	0.40	98.7	F	40/90	0.09	4.6	A	<25/<25	0.14	5.0	A	<25/<25
Route 1A NB T/R	0.70	54.6	D	496/694	0.51	14.4	B	175/268	0.52	14.5	B	176/269
Route 1A SBL	0.44	91.1	F	50/79	0.12	2.3	A	<25/<25	0.17	2.6	A	<25/<25
Route 1A SB T/R	0.38	1.6	A	<25/<25	0.45	13.5	B	50/76	0.45	16.6	B	50/76
Overall Intersection	0.62	39.6	D	--/--	0.56	18.7	B	--/--	0.55	20.4	C	--/--

^a Volume-to-capacity ratio.

^b Average control delay in seconds per vehicle.

^c Level of service.

^d 50th/95th percentile queue length in feet per lane (assuming 25 feet per vehicle).

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Table 7 (continued)
INTERSECTION CAPACITY ANALYSIS SUMMARY

Intersection/Peak Hour/Lane Group	2019 Existing				2026 No-Build				2026 Build			
	V/C ^a	Delay ^b	LOS ^c	Queue ^d	V/C	Delay	LOS	Queue	V/C	Delay	LOS	Queue
Route 1A / Congress Street												
<i>Weekday PM:</i>												
Congress Street EB Approach	0.26	16.0	C	--/25	0.27	16.6	C	--/28	0.29	17.1	C	--/30
<i>Saturday Midday:</i>												
Congress Street EB Approach	0.19	14.0	B	--/<25	0.19	14.5	B	--/<25	0.22	14.9	B	--/<25
Water Street / Site Driveway												
<i>Weekday PM:</i>												
Water Street WB Approach	-	-	-	-	-	-	-	-	0.01	7.8	A	--/<25
Site Driveway NB Approach	-	-	-	-	-	-	-	-	0.04	11.5	B	--/<25
<i>Saturday Midday:</i>												
Water Street WB Approach	-	-	-	-	-	-	-	-	0.01	7.7	A	--/<25
Site Driveway NB Approach	-	-	-	-	-	-	-	-	0.06	11.7	B	--/<25

^a Volume-to-capacity ratio.

^b Average control delay in seconds per vehicle.

^c Level of service.

^d 50th/95th percentile queue length in feet per lane (assuming 25 feet per vehicle).

CONCLUSIONS AND RECOMMENDATIONS

Existing and future conditions in the study area have been described, analyzed, and evaluated with respect to traffic operations and the impact of the proposed Mission Boathouse restaurant development. Conclusions of this effort are presented below.

- The site is located on the southeast corner of the Route 1A (Cabot Street / Essex Bridge) / Water Street intersection. The project consists of razing the existing structure on site and constructing a ±6,800 square foot (SF) quality restaurant with three floors comprised of 350 seats, a 600 SF snack shop, and 250 SF waterfront retail. Access and egress to the site is currently provided via a single full-access / egress driveway on the southerly side of Water Street, which will be maintained.
- The intersection of Rantoul Street (Essex Bridge / Cabot Street) at / Water Street / Front Street / Goat Hill Lane experienced an average of 7.8 collisions per year over the five-year study period, and a crash rate of 0.99 c/mev, which is higher than the statewide (0.78 c/mev) and District 4 (0.73 c/mev) averages. MassDOT is currently at the 75 percent design stage of geometric improvements which will address operational and safety issues at this location. Construction of these improvements is anticipated to begin in spring 2020.
- The proposed development is expected to generate 58 new vehicle trips (46 entering and 12 exiting) during the weekday PM peak hour and 74 new trips (47 entering and 27 exiting) during the Saturday midday peak hour.
- All movements at the Rantoul Street (Route 1A) / Cabot Street (Route 22) intersections are anticipated to operate at LOS E or better under all analysis conditions. In addition, the volume-to-capacity (V/C) ratios will be well below 1.00, indicating there will be adequate capacity to accommodate the anticipated traffic volumes. The additional traffic generated by the proposed mixed-use development is not expected to increase delay on any given movement by more than five (5) seconds per vehicle or increase queues by more than one vehicle on any approach.
- Although the Water Street westbound approach to Route 1A is anticipated to operate at LOS F during the weekday PM peak hour under 2026 No-Build and Build conditions, the V/C ratio will be well below 1.00, indicating adequate capacity exists to accommodate the anticipated traffic volumes. In addition, the queues on this approach are not expected to exceed six vehicles. The LOS F is the direct result of the long cycle length created by the cluster intersection configuration (two signalized intersections controlled by one traffic signal controller), and not by the lack of capacity. The additional traffic generated by the Project is not expected to increase delay on this approach by more than six (6) seconds per

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vehicle or increase queues by more than one vehicle. All other movements at the intersection are anticipated to operate at LOS D or better under all analysis conditions.

- All movements at the site driveway intersection with Water Street are anticipated to operate at LOS B or better with queues not exceeding one vehicle and V/C ratios well below 1.00, indicating there will be adequate capacity to accommodate the anticipated traffic volumes.
- All movements at the remaining study area intersections are not anticipated to experience an increase in delay of more than one (1) second per vehicle as a result of the proposed project and are anticipated to operate at LOS D or better under all analysis conditions.

Based on the findings above, the proposed Mission Boathouse restaurant development can be safely and efficiently accommodated along the existing roadway network. No project-specific mitigation is warranted based on the incremental impacts of the development.

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APPENDIX

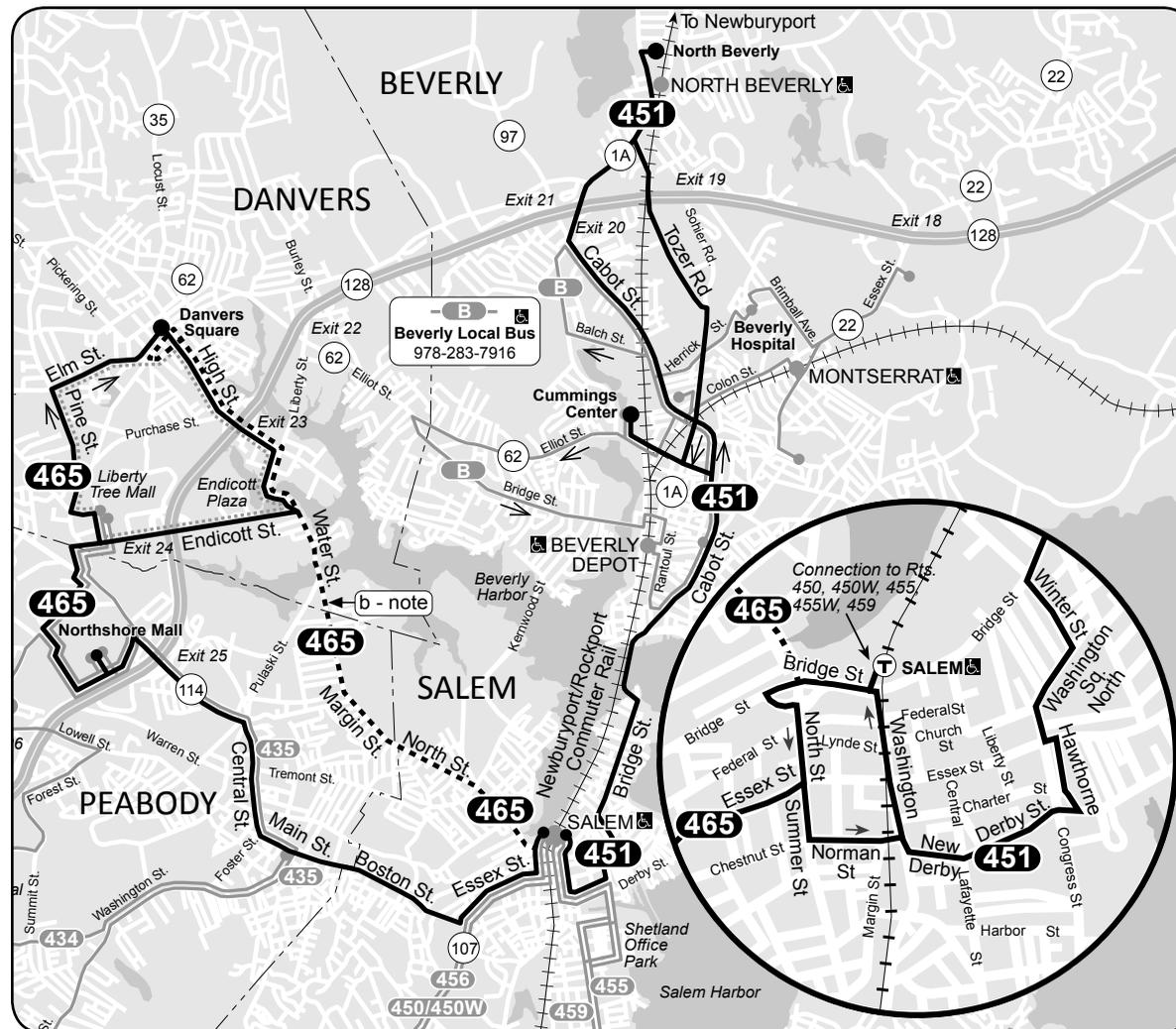
**PUBLIC TRANSIT DATA
TRAFFIC-COUNT DATA
TRAFFIC-VOLUME ADJUSTMENT DATA
MASSDOT CRASH DATA
BACKGROUND DEVELOPMENT DATA
TRIP-GENERATION CALCULATIONS
CAPACITY ANALYSIS METHODOLOGY
CAPACITY AND QUEUE ANALYSIS WORKSHEETS**

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PUBLIC TRANSIT DATA

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451 Weekday

Inbound			Outbound		
Leave North Beverly	Arrive Cummings Center	Arrive Salem Depot	Leave Salem Depot	Arrive Cummings Center	Arrive North Beverly
6:50A	6:59A	7:19A	a 6:00A	6:24A	6:42A
8:00	8:12	8:35	a 7:10	7:36	7:54
9:00	9:11	9:32	a 8:20	8:41	8:59
a 3:20P	3:31P	3:53P	2:30P	2:55P	3:16P
a 4:30	4:40	5:03	3:40	4:03	4:25
a 5:20	5:31	5:55	4:25	4:46	5:12
a 6:15	6:25	6:43	5:25	5:47	6:05
a 7:10	7:18	7:39	6:30	6:48	7:05

a - Via Tozer Road.

No Route 451 Service on Saturday or Sunday.

465 Weekday

Inbound					Outbound				
Leave Danvers Square	Arrive Liberty Tree	Arrive N. Shore Mall	Arrive Peabody Square	Arrive Salem Depot	Leave Salem Depot	Arrive Peabody Square	Arrive N. Shore Mall	Arrive Liberty Tree	Arrive Danvers Square
b 6:50A	.....	.....	.....	7:04A	7:25A	7:39A	7:46A	7:55A	8:03A
b 8:10	.....	.....	.....	8:28	8:40	9:01	9:09	9:20	9:26
9:35	9:46A	9:57A	10:03A	10:18	9:40	9:56	10:04	10:15	10:21
10:35	10:46	10:57	11:03	11:18	10:30	10:44	10:51	11:01	11:10
11:25	11:36	11:47	11:53	12:08P	11:30	11:48	11:56	12:09P	12:16P
12:25P	12:36P	12:47P	12:53P	1:12P	12:30P	12:48P	12:56P	1:09P	1:16P
1:25	1:36	1:49	1:53	2:12	1:30	1:48	1:56	2:09	2:16
2:25	2:37	2:52	3:01	3:19	2:30	2:45	2:57	3:06	3:18
3:25	3:37	3:50	3:58	4:15	3:30	3:45	3:56	4:06	4:16
4:25	4:37	4:50	4:58	5:15	4:35	4:50	5:01	5:11	5:21
5:35	5:47	6:00	6:06	6:19	bm 6:00	.....	.....	.....	6:16
6:25	6:39	6:51	6:57	7:07	bm 6:50	.....	.....	.....	7:04
7:15	7:29	7:42	7:46	7:56					

b - Via Water, Margin and North Streets
 m - Passengers may remain on bus at Danvers Sq. for service to malls.

Route 451
North Beverly-Salem Depot

Route 465
Danvers Square-Salem Depot

Note: For weekday service to Danvers Square after 7:00 PM please refer to Route 435 schedule card.

465 Saturday

Inbound					Outbound				
Leave Danvers Square	Arrive Liberty Tree	Arrive N. Shore Mall	Arrive Peabody Square	Arrive Salem Depot	Leave Salem Depot	Arrive Peabody Square	Arrive N. Shore Mall	Arrive Liberty Tree	Arrive Danvers Square
9:00A	9:08A	9:18A	9:23A	9:34A	8:05A	8:12A	8:18A	8:28A	8:36A
11:00	11:10	11:22	11:27	11:43	10:05	10:13	10:21	10:32	10:40
1:00P	1:13P	1:25P	1:31P	1:50P	12:05P	12:14P	12:23P	12:35P	12:44P
3:00	3:13	3:26	3:32	3:49	2:05	2:14	2:23	2:35	2:44
5:00	5:12	5:24	5:29	5:46	4:05	4:13	4:21	4:32	4:42
7:00	7:10	7:22	7:27	7:39	6:05	6:12	6:20	6:31	6:39

No Route 465 service on Sunday

 **All buses are accessible to persons with disabilities**

Fare	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	\$1.70	\$1.70	\$2.25	\$2.25
CharlieTicket	\$2.00	\$2.00	\$2.75	\$4.75
Cash-on-Board	\$2.00	\$4.00	\$2.75	\$4.75
Student/Youth*	\$0.85	\$0.85	\$1.10	\$1.10
Senior/TAP**	\$0.85	\$0.85	\$1.10	\$1.10

VALID PASSES: LinkPass (\$84.50/mo.); Local Bus (\$55/mo.); *Student/Youth LinkPass (\$30.00/mo.); **Senior/TAP LinkPass (\$30/mo.); and express bus, commuter rail, and boat passes.
FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free and if using a guide, the guide rides free.
 * Requires Student CharlieCard or Youth CharlieCard. Student CharlieCards are available to students through participating middle schools and high schools. Youth CharlieCards are available through community partners in the Boston metro area. Visit www.mbta.com/youthpass for details.
 ** Requires Senior/TAP CharlieCard, available to Medicare cardholders, seniors 65+, and persons with disabilities.

Fall 2018 & Winter 2019 Holidays
 9/3/18: see Sunday 10/8/18: see Weekday
 11/22/18, 12/25/18, 1/1/19: see Sunday 1/21/19 & 2/18/19: see Saturday

NEWBURYPORT/ROCKPORT LINE

Effective October 29, 2018

Keep in Mind:

This schedule will be effective from October 29, 2018 and will replace the schedule of May 21, 2018.

Presidents' Day and 4th of July operate on a **Saturday service schedule**.

New Year's Day, Memorial Day, Labor Day, Thanksgiving Day, and Christmas Day operate on a **Sunday service schedule**.

For all other holiday schedules, please check MBTA.com or call 617-222-3200.

Times in purple with "f" indicate a flag stop: Passengers must tell the conductor that they wish to leave. Passengers waiting to board must be visible on the platform for the train to stop.

Times in blue indicate an early departure (L stop): The train may leave ahead of schedule at these stops.

Bikes: Bicycles are allowed on trains with the bicycle symbol shown below the train number.

High level platform and bridge plate available. Visit mbta.com/accessibility for more information.

Schedules may change in the event of severe weather

The MBTA and Keolis closely monitor weather forecasts to determine if conditions necessitate changes to the Commuter Rail schedule.

During weather events, the symbols below will communicate service level and impact on passengers. Service level for the following day will be announced mid-afternoon on the prior day.



REGULAR SCHEDULE

Trains will operate on a normal schedule.



STORM SCHEDULE

Major changes to the regular schedule. Schedules will be available on mbta.com, and in Boston stations.



NO SERVICE

No passenger service on Commuter Rail.

Monday to Friday

Inbound to Boston			AM											PM																									
ZONE	STATION	TRAIN #	100	150	152	102	154	104	156	106	158	160	192	108	162	110	164	112	166	114	168	116	170	118	172	194	120	174	122	176	124	178	126	180	128	182			
	Bikes Allowed		🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	
8	Rockport	⚡	4:55	-	-	5:48	-	6:30	-	7:10	-	-	-	8:15	-	9:20	-	11:00	-	12:30	-	1:50	-	3:30	-	5:03	-	5:45	-	7:15	-	8:45	-	10:30	-	-	-		
7	Gloucester	⚡	5:02	-	-	5:55	-	6:37	-	7:17	-	-	-	8:22	-	9:27	-	11:07	-	12:37	-	1:57	-	3:37	-	5:10	-	5:52	-	7:22	-	8:52	-	10:37	-	-	-		
7	West Gloucester	⚡	5:08	-	-	6:01	-	6:43	-	7:23	-	-	-	8:28	-	f 9:33	-	f 11:13	-	f 12:43	-	f 2:03	-	f 3:43	-	f 5:17	-	f 5:58	-	f 7:28	-	f 8:58	-	f 10:43	-	-	-		
6	Manchester	⚡	5:15	-	-	6:08	-	6:50	-	7:30	-	-	-	8:35	-	9:40	-	11:20	-	12:50	-	2:10	-	3:50	-	5:24	-	6:05	-	7:35	-	9:05	-	10:50	-	-	-		
5	Beverly Farms	⚡	5:22	-	-	6:15	-	6:57	-	7:37	-	-	-	8:42	-	f 9:47	-	f 11:27	-	f 12:57	-	f 2:17	-	f 3:57	-	f 5:31	-	f 6:12	-	f 7:42	-	f 9:12	-	f 10:57	-	-	-		
5	Prides Crossing	⚡	-	-	-	f 6:17	-	f 6:59	-	f 7:39	-	-	-	-	-	f 9:53	-	f 11:33	-	f 13:03	-	f 2:23	-	f 4:03	-	f 5:37	-	f 6:18	-	f 7:48	-	f 9:18	-	f 11:03	-	-	-		
4	Montserrat	⚡	5:28	-	-	6:22	-	7:04	-	7:44	-	-	-	8:48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
8	Newburyport	⚡	-	5:20	5:50	-	6:25	-	7:00	-	7:30	-	7:55	-	-	-	10:00	-	11:40	-	-	-	1:10	-	2:55	-	3:48	-	4:40	-	5:48	-	6:48	-	7:52	-	8:58	-	
7	Rowley	⚡	-	5:25	5:55	-	6:30	-	7:05	-	7:35	-	8:00	-	-	f 9:20	-	f 10:05	-	f 11:45	-	-	-	f 1:15	-	f 3:00	-	f 4:47	-	f 5:53	-	f 7:13	-	f 8:15	-	f 9:30	-	f 11:08	-
6	Ipswich	⚡	-	5:31	6:02	-	6:37	-	7:12	-	7:42	-	8:07	-	-	9:26	-	10:11	-	11:51	-	-	-	1:21	-	3:06	-	4:53	-	5:59	-	7:19	-	8:21	-	9:36	-	11:14	-
5	Hamilton/Wenham	⚡	-	5:37	6:08	-	6:43	-	7:18	-	7:48	-	8:13	-	-	f 9:32	-	f 10:17	-	f 11:57	-	-	-	f 1:27	-	f 3:12	-	f 4:59	-	f 6:12	-	f 7:25	-	f 8:32	-	f 9:42	-	f 11:20	-
5	North Beverly	⚡	-	5:41	6:13	-	6:48	-	7:23	-	7:53	-	8:18	-	-	f 9:36	-	f 10:21	-	f 12:01	-	-	-	f 1:31	-	f 3:16	-	f 5:03	-	f 6:29	-	f 7:29	-	f 8:36	-	f 9:46	-	f 11:24	-
4	Beverly	⚡	5:33	5:47	6:18	6:27	6:53	7:09	7:28	7:49	7:58	8:24	8:33	8:54	9:42	9:58	10:27	11:38	12:07	1:08	1:37	2:28	3:21	4:08	5:10	5:32	5:42	6:20	6:25	7:35	7:53	8:42	9:23	9:52	11:08	11:30	-	-	
3	Salem	⚡	5:37	5:51	6:22	6:31	6:57	7:13	7:33	7:53	8:02	8:28	8:37	8:58	9:46	10:02	10:31	11:42	12:11	1:12	1:41	2:32	3:26	4:12	5:15	5:36	5:49	6:24	6:29	7:39	7:57	8:46	9:27	9:56	11:12	11:34	-	-	
3	Swampscott	⚡	5:45	5:59	-	6:39	7:05	-	7:41	8:01	8:10	-	8:45	9:06	9:54	10:10	10:39	11:50	12:19	1:20	1:49	2:40	3:34	4:20	5:23	-	5:58	-	6:37	7:47	8:05	8:54	9:35	10:04	11:20	-	-		
2	Lynn	⚡	5:49	6:03	-	6:43	7:09	-	7:45	-	8:14	-	8:49	9:10	9:58	10:14	10:43	11:54	12:23	1:24	1:53	2:44	3:38	4:24	5:27	-	6:02	-	6:42	7:51	8:09	8:58	9:39	10:08	11:24	-	-		
2	River Works	⚡	f 5:52	f 6:06	-	f 6:46	f 7:12	-	f 7:48	-	f 8:17	-	f 8:52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1A	Chelsea/Bellingham Sq.	⚡	5:59	6:13	-	6:53	7:19	-	7:55	-	8:24	-	8:59	9:19	f 10:07	f 10:23	f 10:52	f 12:03	f 12:32	f 1:33	f 2:02	f 2:54	f 3:48	f 4:34	f 5:37	-	f 6:12	-	f 6:53	f 8:00	f 8:18	f 9:07	f 9:49	f 10:17	f 11:34	-	-		
1A	North Station	⚡	6:11	6:25	6:49	7:05	7:31	7:40	8:08	8:22	8:36	8:55	9:11	9:31	10:18	10:34	11:03	12:14	12:43	1:44	2:13	3:05	3:59	4:45	5:50	6:02	6:23	6:50	7:04	8:11	8:29	9:18	10:00	10:28	11:45	12:00	-	-	

Trains in purple box indicate peak period trains.

Monday to Friday

Outbound from Boston			AM											PM											AM													
ZONE	STATION	TRAIN #	153	101	191	155	103	157	105	159	107	161	109	163	111	165	113	115	167	193	117	169	119	171	173	121	175	123	177	125	179	127	181	129	183			
	Bikes Allowed		🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲	🚲
1A	North Station	⚡	6:26	6:39	7:08	7:40	8:10	8:35	9:40	10:35	11:20	12:00	1:20	1:50	3:15	3:30	4:15	4:30	4:40	5:00	5:15	5:30	5:40	6:05	6:25	6:45	7:15	7:35	8:45	9:10	10:20	10:50	12:10	12:15	-	-		
1A	Chelsea/Bellingham Sq.	⚡	-	f 6:50	f 7:19	f 7:51	f 8:02	f 8:22	f 8:47	f 9:52	f 10:47	f 11:32	f 12:12	f 1:32	f 2:02	f 3:27	f 3:41	f 4:27	f 4:52	f 5:00	f 5:27	f 5:35	f 5:52	f 6:17	f 6:37	f 6:57	f 7:27	f 7:47	f 8:57	f 9:22	f 10:32	f 11:02	f 12:22	f 12:27	-	-		
2	River Works	⚡	-	f 6:57	-	f 7:26	-	f 8:09	f 8:29	-	-	-	-	-	f 2:09	f 3:35	f 3:49	f 4:35	-	-	-	-	f 6:00	-	f 6:45	f 7:05	f 7:34	-	-	-	-	f 10:39	-	-	-			
2	Lynn	⚡	-	-	-	7:28	7:59	8:11	8:31	8:55	10:00	10:55	11:40	12:20	1:40	2:11	3:37	3:51	4:37	-	5:00	-	5:35	-	6:02	6:25	6:47	7:07	7:36	7:55	9:05	9:30	10:41	11:10	12:30	12:35	-	-
3	Swampscott	⚡	-	-	-	7:33	8:04	8:16	8:36	9:00	10:05	11:00	11:45	12:25	1:45	2:16	3:42	3:56	4:42	-	5:05	-	5:40	-	6:07	6:30	6:52	7:12	7:41	8:00	9:10	9:35	10:46	11:15	12:35	12:40	-	-
3	Salem	⚡	6:52	7:07	7:40	8:11	8:23	8:43	9:07	10:12	11:07	11:52	12:32	1:52	2:23	3:49	4:03	4:49	4:56	5:12	5:26	5:47	5:56	6:14	6:37	6:59	7:19	7:48	8:07	9:17	9:42	10:53	11:22	12:42	12:47	-	-	
4	Beverly	⚡	6:56	7:11	7:44	8:16	8:27	8:47	9:11	10:16	11:11	11:56	12:36	1:56	2:27	3:54	4:07	4:53	5:00	5:16	5:30	5:51	6:00	6:18	6:41	7:03	7:24	7:52	8:11	9:21	9:46	10:57	11:26	12:46	12:51	-	-	
5	North Beverly	⚡	f 7:00	-	-	f 8:20	-	f 8:51	-	f 10:16	-	f 12:00	-	f 2:00	-	3:59	-	5:06	-	5:56	-	6:23	6:46	7:30	-	8:21	-	8:16	-	f 9:50	-	f 11:30	-	f 12:55	-	-	-	
5	Hamilton/Wenham	⚡	f 7:04	-	-	f 8:24	-	f 8:55	-	f 10:24	-	f 12:04	-	f 2:04	-	4:03	-	5:10	-	6:00	-	6:27	6:50	7:34	-	8:21	-	f 9:54	-	f 11:34	-	f 12:59	-	-	-			
6	Ipswich	⚡	7:15	-	-	8:30	-	9:03	-	10:30	-	12:10	-	2:10	4:09	-	5:16	-	6:06	-	6:33	6:56	7:40	-	8:27	-	8:27	-	10:00	-	11:40	-	1:40	-	1:05	-		
7	Rowley	⚡	-	-	-	f 8:35	-	f 9:08	-	f 10:35	-	f 12:15	-	f 2:15	4:15	-	5:22	-	6:12	-	6:39	7:02	7:46	-	8:34	-	f 8:											

	8 41	9 41	10 41	11 41	12 41	2 41	3 41	4 41
Elliott St. & Glodsmith Ave.	8 43	9 43	10 43	11 43	12 43	2 43	3 43	4 43
Bridge Street Variety Store	8 45	9 45	10 45	11 45	12 45	2 45	3 45	4 45

YELLOW LINE City of BEVERLY Shuttle (see MON-FRI)

SATURDAY

	AM			PM				
City Hall	7 00	8 30	10 00	12 00	1 00	2 10	3 20	
Cabot & Elliott Streets	7 02	8 32	10 02	12 02	1 02	2 12	3 22	
Cummings Center	7 04	8 34	10 04	12 04	1 04	2 14	3 24	
Stop & Shop Supermarkets	7 06	8 36	10 06	12 06	1 06	2 16	3 26	
Elliott & McKay Streets	7 08	8 38	10 08	12 08	1 08	2 18	3 28	
Elliott & County Way	7 10	8 40	10 10	12 10	1 10	2 20	3 30	
County Way & Bridge St.	7 11	8 41	10 11	12 11	1 11	2 21	3 31	
Bridge St. & Western Ave.	7 12	8 42	10 12	12 12	1 12	2 22	3 32	
Apple Village / Manor Road	7 18	8 48	10 18	—	—	—	—	
Shaw's / N. Beverly Plaza	7 24	8 54	10 24	12 17	1 24	2 34	3 44	
Cabot St. & County Way	7 27	8 57	10 27	12 20	1 27	2 37	3 47	
McKay & Balch Streets	7 29	8 59	10 29	12 22	1 29	2 39	3 49	
Balch Street Apartments	7 30	9 00	10 30	12 23	1 30	2 40	3 50	
Herrick Street Apartments	7 32	9 02	10 32	12 25	1 32	2 42	3 52	
Beverly Hospital	7 34	9 04	10 34	12 27	1 34	2 44	3 54	
Herrick St. & Brimbal Ave.	7 36	9 06	10 36	12 29	1 36	2 46	3 56	
Mediplex	7 38	9 08	10 38	12 31	1 38	2 48	3 58	
Turtle Creek Apartments	7 41	9 11	10 41	12 34	1 41	2 51	4 01	
Turtle Woods Apartments	7 44	9 14	10 44	12 37	1 44	2 54	4 04	
Hale & Hart Streets	7 55	9 25	10 55	—	—	—	—	
Hale & Corning Streets	8 03	9 33	11 03	—	—	—	—	
Corning & Essex Streets	8 06	9 36	11 06	—	—	—	—	
Cedar Street Apartments	8 10	9 40	11 10	12 40	1 47	2 57	4 07	
Essex & Dane Street	8 13	9 43	11 13	12 43	1 50	3 00	4 10	
Dane & Cabot Streets	8 14	9 44	11 14	12 45	1 52	3 02	4 12	
Garden City Apartments	8 17	9 47	11 17	12 47	1 54	3 04	4 14	
Glou. Crossing / Rite Aid	8 20	9 50	11 20	12 50	1 57	3 07	4 17	
527 Rantoul & Elliott/CVS	8 22	9 52	11 22	12 52	2 00	3 10	4 20	
Rantoul & Federal Streets	8 24	9 54	11 24	12 54	2 02	3 12	4 22	
Commuter Rail Station	8 26	9 56	11 26	12 56	2 05	3 15	4 25	
Cabot & Edwards Streets	8 28	9 58	11 28	12 58	2 07	3 17	4 27	

City Hall	8 30	10 00	11 30	1 00	2 10	3 20	4 30
YELLOW LINE Beverly Shuttle 6:45 - 7:45 AM [see 7:45 AM - 5:00 PM]							
MONDAY-FRIDAY							AM
Bridge St. Variety Store							6 45
Bridge St. & Kernwood Ave.							6 47
Beverly Depot (East Side)							6 51
Pleasant & Cabot Streets							7 07
Beverly City Hall							7 10
Elliott & Cabot Streets							7 13
Rantoul Street & Broadway							7 15
Beverly Depot (East Side)							7 18
Bridge St. & County Way							7 28
County Way & Elliott St.							7 29
Elliott & Beckford Streets							7 32
Herrick St. & Sohier Road							7 35
Gloucester Crossing							7 36
Rantoul & Elliott Streets							7 40
Elliott & Bridge Streets							7 45

BEVERLY FARES

\$0.50 regular

.25 seniors 60 and over

.25 persons with disabilities

8.00 monthly pass sold at City Hall

A maximum of two (2) parcels or bags are allowed on bus, due to limited seating.

Passengers are limited to two (2) consecutive round trips daily.

HOLIDAYS

Shuttle operates on:

* Martin Luther King Day

* Presidents' Day

* Patriot's Day

Provided by the City of Beverly with financial assistance from the MBTA

CATA Routes & Schedules

WAVE-A-BUS ~ get a ride ([more info](#))

click schedule name to see details

RED LINE

ROCKPORT · GLOUCESTER · GHS

GLOUCESTER · ROCKPORT via Thatcher Road

GREEN LINE

GLOUCESTER · ROCKPORT via Eastern Avenue

GLOUCESTER · Blackburn Industrial Park

Blue Gate Meadows Parking · ROCKPORT Loop

ORANGE LINE

GLOUCESTER · O'Maley MS · GHS

Gloucester Crossing & Business Express Loop

BLUE LINE

ROCKPORT · O'Maley MS · GHS · GLOUCESTER

GLOUCESTER · ROCKPORT via Lanesville

YELLOW LINE

GLOUCESTER · Magnolia · GHS · GLOUCESTER

GLOUCESTER · MAGNOLIA

GLOUCESTER · DANVERS · PEABODY

City of BEVERLY Shuttle

PURPLE LINE

GLOUCESTER · West Glou · GHS · East Glou

GLOUCESTER · West Glou · ESSEX Town Line

IPSWICH · ESSEX · CRANE BEACH



STAGE FORT PARK Shuttle
Park n' Ride Trolley



Download routes, schedules, fares, passes & maps here (PDF)

CATA is committed to operating its transportation programs without regard to race, color, and national origin. Members of the public who would like to receive further information about CATA's nondiscrimination policies, or would like to file a complaint against CATA may write to: Administrator, CATA, P.O. Box 780, Gloucester, MA 01930-0780

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TRAFFIC IMPACT AND ACCESS STUDY

Mission Boathouse Restaurant – Beverly, Massachusetts

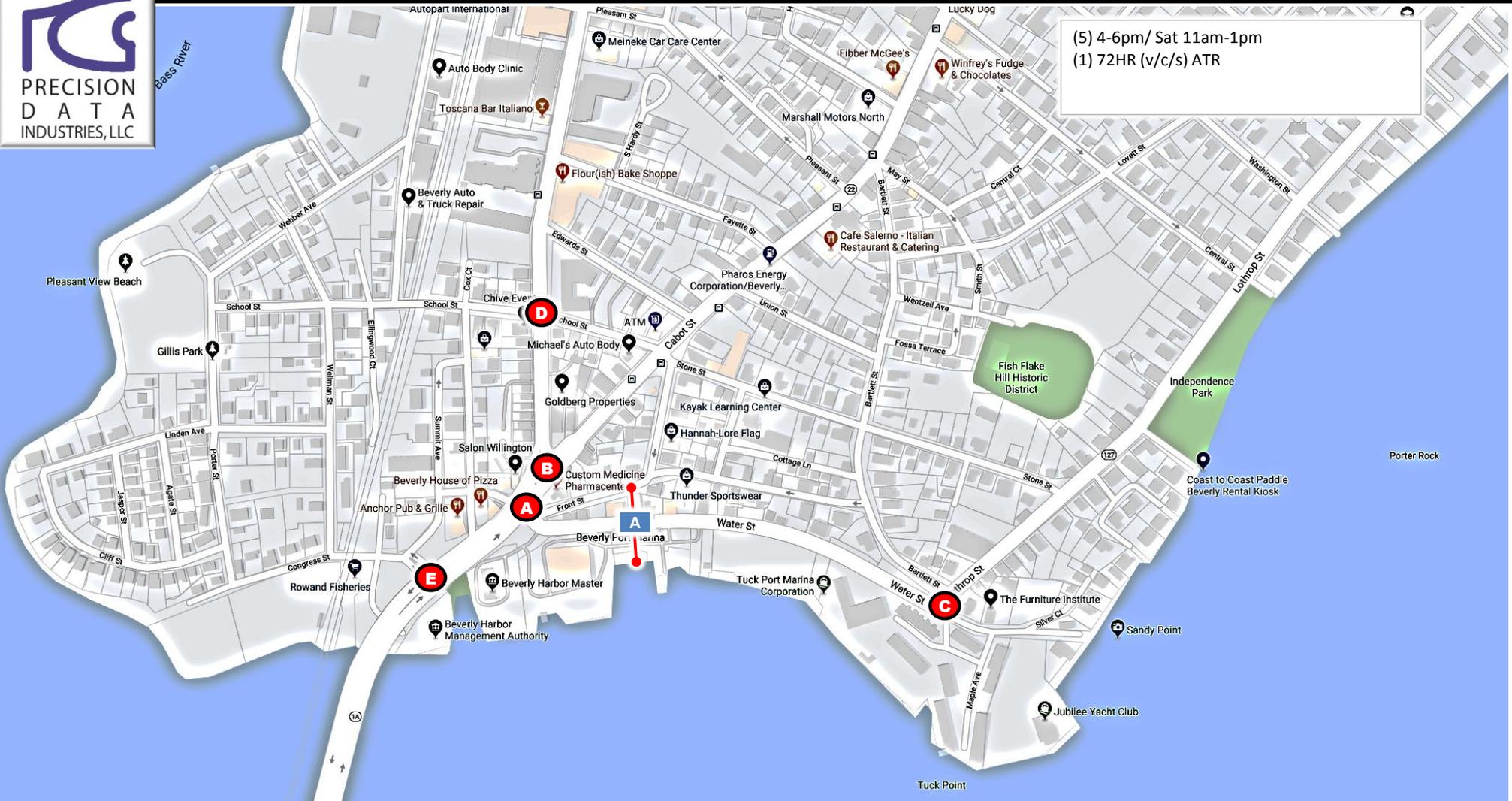
TRAFFIC-COUNT DATA



Location Map: 197004 Beverly, MA

Precision Data Industries, LLC 46 Morton Street, Framingham, MA 01702 ph: 508-875-0100 email: datarequests@pdillc.com

(5) 4-6pm/ Sat 11am-1pm
(1) 72HR (v/c/s) ATR



Client:
GPI

Engineer:
D. Halpert

Site Code:
MAX-2019071

Date:
Thurs 5/30 thru Sat 6/1/2019

PDI Job #
197004

City, State:
Beverly, MA

#36 Water Street
 east of Front Street
 City, State: Beverly, MA
 Client: GPI / D. Halpert



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

197004 A Volume
 Site Code: MAX-2019071

Start Time	EB		WB		Combin ed		06/05/19 Wed							
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.								
12:00	4	32	2	35	6	67								
12:15	3	36	0	34	3	70								
12:30	0	26	2	30	2	56								
12:45	4	43	137	1	5	37	136	5	16	80	273			
01:00	2	45		2		32		4		77				
01:15	3	56		1		30		4		86				
01:30	0	40		0		32		0		72				
01:45	2	30	171	2	5	36	130	4	12	66	301			
02:00	1	38		2		41		3		79				
02:15	1	30		1		41		2		71				
02:30	0	53		0		47		0		100				
02:45	0	44	165	1	4	31	160	1	6	75	325			
03:00	1	49		0		53		1		102				
03:15	0	48		0		43		0		91				
03:30	2	39		0		42		2		81				
03:45	0	69	205	0	0	44	182	0	3	113	387			
04:00	1	56		0		24		1		80				
04:15	3	62		0		37		3		99				
04:30	2	56		2		46		4		102				
04:45	1	69	243	2	4	43	150	3	11	112	393			
05:00	1	54		7		52		8		106				
05:15	1	74		7		54		8		128				
05:30	8	47		6		50		14		97				
05:45	10	63	238	9	29	51	207	19	49	114	445			
06:00	10	45		7		46		17		91				
06:15	14	38		17		40		31		78				
06:30	24	47		24		34		48		81				
06:45	32	35	165	31	79	25	145	63	159	60	310			
07:00	34	35		39		27		73		62				
07:15	51	29		54		37		105		66				
07:30	57	31		39		31		96		62				
07:45	59	32	127	48	180	28	123	107	381	60	250			
08:00	47	28		55		26		102		54				
08:15	36	22		53		27		89		49				
08:30	49	22		48		22		97		44				
08:45	52	18	90	38	194	14	89	90	378	32	179			
09:00	29	25		31		21		60		46				
09:15	24	24		31		17		55		41				
09:30	29	20		36		9		65		29				
09:45	36	11	80	19	117	19	66	55	235	30	146			
10:00	27	14		20		18		47		32				
10:15	38	11		26		7		64		18				
10:30	24	8		27		13		51		21				
10:45	34	17	50	23	96	5	43	57	219	22	93			
11:00	28	7		35		7		63		14				
11:15	33	8		28		6		61		14				
11:30	23	4		34		7		57		11				
11:45	48	4	23	36	133	2	22	84	265	6	45			
Total	888	1694		846		1453		1734		3147				
Percent	51.2%	53.8%		48.8%		46.2%								
Day Total		2582			2299			4881						
Peak Vol.	07:15	-	04:30	-	07:45	-	05:00	-	07:15	-	04:30	-	-	-
P.H.F.	0.907	-	0.855	-	0.927	-	0.958	-	0.958	-	0.875	-	-	-

#36 Water Street
 east of Front Street
 City, State: Beverly, MA
 Client: GPI / D. Halpert



PRECISION
 D A T A
 INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

197004 A Volume
 Site Code: MAX-2019071

Start Time	EB		WB		Combin ed		06/06/19 Thu							
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.								
12:00	2	34	0	31	2	65								
12:15	3	35	1	32	4	67								
12:30	3	26	2	32	5	58								
12:45	1	36	131	1	4	28	123	13	64	254				
01:00	0	23	1	30	1	53								
01:15	0	48	1	36	1	84								
01:30	0	62	1	24	1	86								
01:45	0	41	174	0	3	25	115	0	3	66	289			
02:00	4	42	0	28	4	70								
02:15	0	38	0	38	0	76								
02:30	1	32	1	36	2	68								
02:45	0	44	156	2	3	36	138	2	8	80	294			
03:00	0	45	1	28	1	73								
03:15	0	49	0	50	0	99								
03:30	1	57	0	51	1	108								
03:45	0	63	214	0	1	43	172	0	2	106	386			
04:00	1	70	1	32	2	102								
04:15	0	53	0	37	0	90								
04:30	2	65	1	34	3	99								
04:45	2	70	258	8	10	42	145	10	15	112	403			
05:00	6	73	0	49	6	122								
05:15	2	73	2	61	4	134								
05:30	4	38	7	31	11	69								
05:45	8	59	243	6	15	33	174	14	35	92	417			
06:00	8	48	16	40	24	88								
06:15	18	49	16	35	34	84								
06:30	19	36	29	32	48	68								
06:45	25	35	168	30	91	24	131	55	161	59	299			
07:00	31	39	36	29	67	68								
07:15	46	37	37	20	83	57								
07:30	43	26	38	29	81	55								
07:45	69	37	139	45	156	31	109	114	345	68	248			
08:00	41	25	36	29	77	54								
08:15	41	33	45	24	86	57								
08:30	54	31	42	20	96	51								
08:45	36	172	20	109	45	168	21	94	81	340	41	203		
09:00	35	25	37	22	72	47								
09:15	17	18	28	22	45	40								
09:30	29	12	22	18	51	30								
09:45	29	110	14	69	27	114	12	74	56	224	26	143		
10:00	19	17	17	15	36	32								
10:15	25	9	15	11	40	20								
10:30	37	9	23	6	60	15								
10:45	29	110	9	44	23	78	9	41	52	188	18	85		
11:00	29	16	17	10	46	26								
11:15	33	16	24	8	57	24								
11:30	30	6	21	8	51	14								
11:45	20	112	5	43	21	83	0	26	41	195	5	69		
Total	803	1748	726	1342	1529	3090								
Percent	52.5%	56.6%	47.5%	43.4%										
Day Total		2551		2068		4619								
Peak	07:45	-	04:30	-	08:15	-	04:30	-	07:45	-	04:30	-	-	-
Vol.	205	-	281	-	169	-	186	-	373	-	467	-	-	-
P.H.F.	0.743	-	0.962	-	0.939	-	0.762	-	0.818	-	0.871	-	-	-

#36 Water Street
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197004 A Volume
Site Code: MAX-2019071

Start Time	EB		WB		Combin ed		06/07/19 Fri			
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.				
12:00	5	33	2	28	7	61				
12:15	1	37	2	39	3	76				
12:30	3	38	1	28	4	66				
12:45	4	48	156	34	129	82	285			
01:00	3	45	1	32	4	77				
01:15	4	36	2	56	6	92				
01:30	0	37	2	38	2	75				
01:45	2	46	164	38	164	84	328			
02:00	1	53	1	42	2	95				
02:15	3	43	0	43	3	86				
02:30	1	61	2	51	3	112				
02:45	0	52	209	40	176	92	385			
03:00	0	53	0	46	0	99				
03:15	1	68	0	45	1	113				
03:30	1	46	0	54	1	100				
03:45	1	60	227	52	197	112	424			
04:00	1	48	0	38	1	86				
04:15	2	83	3	32	5	115				
04:30	1	67	2	49	3	116				
04:45	3	60	258	39	158	99	416			
05:00	4	44	2	53	6	97				
05:15	3	56	8	48	11	104				
05:30	6	46	7	35	13	81				
05:45	9	51	197	36	172	87	369			
06:00	8	50	10	40	18	90				
06:15	16	41	19	27	35	68				
06:30	24	33	23	33	47	66				
06:45	41	44	168	34	134	78	302			
07:00	32	37	28	30	60	67				
07:15	41	39	37	31	78	70				
07:30	57	27	32	17	89	44				
07:45	66	23	126	18	96	41	222			
08:00	32	33	44	22	76	55				
08:15	40	37	50	20	90	57				
08:30	43	29	28	37	71	66				
08:45	46	26	125	21	100	47	225			
09:00	43	33	32	21	75	54				
09:15	33	16	22	30	55	46				
09:30	39	30	25	14	64	44				
09:45	34	20	99	14	79	34	178			
10:00	36	19	27	16	63	35				
10:15	35	23	21	10	56	33				
10:30	33	14	31	10	64	24				
10:45	44	17	73	16	52	33	125			
11:00	38	14	27	12	65	26				
11:15	43	20	45	12	88	32				
11:30	29	8	27	12	56	20				
11:45	48	10	52	4	84	14	92			
Total	960	1854	771	1497	1731	3351				
Percent	55.5%	55.3%	44.5%	44.7%						
Day Total		2814		2268		5082				
Peak Vol.	07:00	-	03:45	-	07:30	-	03:45	-	-	-
P.H.F.	196	-	258	-	172	-	367	-	429	-
	0.742		0.777		0.860		0.819		0.925	

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197004 A Volume
Site Code: MAX-2019071

Start Time	EB		WB		Combin ed		06/08/19 Sat							
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.								
12:00	5	54	1	34	6	88								
12:15	6	50	9	29	15	79								
12:30	5	58	1	46	6	104								
12:45	2	44	206	3	14	27	136	32	71	342				
01:00	6	53	1	43	7	96								
01:15	7	55	0	32	7	87								
01:30	7	48	0	38	7	86								
01:45	2	51	207	3	4	40	153	5	26	91	360			
02:00	3	42	0	39	3	81								
02:15	0	56	2	39	2	95								
02:30	3	28	2	36	5	64								
02:45	2	8	50	176	2	6	29	143	4	14	79	319		
03:00	1	59	0	29	1	88								
03:15	1	37	0	34	1	71								
03:30	1	49	0	28	1	77								
03:45	2	5	53	198	1	1	46	137	3	6	99	335		
04:00	0	44	2	45	2	89								
04:15	1	49	1	44	2	93								
04:30	2	52	0	41	2	93								
04:45	5	8	42	187	2	5	50	180	7	13	92	367		
05:00	4	45	1	49	5	94								
05:15	1	40	0	41	1	81								
05:30	3	39	4	40	7	79								
05:45	5	13	39	163	6	11	45	175	11	24	84	338		
06:00	9	33	6	40	15	73								
06:15	15	35	3	34	18	69								
06:30	24	42	7	40	31	82								
06:45	16	64	33	143	13	29	53	167	29	93	86	310		
07:00	13	35	7	30	20	65								
07:15	13	29	16	28	29	57								
07:30	20	43	18	23	38	66								
07:45	27	73	42	149	18	59	23	104	45	132	65	253		
08:00	25	40	14	21	39	61								
08:15	29	14	24	26	53	40								
08:30	21	28	28	29	49	57								
08:45	40	115	29	111	22	88	21	97	62	203	50	208		
09:00	27	18	34	14	61	32								
09:15	37	26	31	22	68	48								
09:30	45	27	33	17	78	44								
09:45	40	149	15	86	23	121	18	71	63	270	33	157		
10:00	38	23	34	16	72	39								
10:15	42	14	36	20	78	34								
10:30	50	26	36	10	86	36								
10:45	47	177	8	71	35	141	12	58	82	318	20	129		
11:00	44	20	29	10	73	30								
11:15	52	12	36	7	88	19								
11:30	53	9	39	12	92	21								
11:45	56	205	8	49	35	139	8	37	91	344	16	86		
Total	857	1746	618	1458	1475	3204								
Percent	58.1%	54.5%	41.9%	45.5%										
Day Total		2603		2076		4679								
Peak	11:00	-	00:30	-	10:00	-	04:15	-	11:00	-	03:45	-	-	-
Vol.	205	-	210	-	141	-	184	-	344	-	374	-	-	-
P.H.F.	0.915	-	0.905	-	0.979	-	0.920	-	0.935	-	0.944	-	-	-

#36 Water Street
 east of Front Street
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PRECISION
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 INDUSTRIES, LLC

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197004 A Class
 Site Code: MAX-2019071

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/05/1														
9	0	11	0	0	0	0	0	0	0	0	0	0	0	11
01:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
04:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
05:00	0	14	5	0	1	0	0	0	0	0	0	0	0	20
06:00	0	63	11	1	4	0	0	1	0	0	0	0	0	80
07:00	0	162	32	1	6	0	0	0	0	0	0	0	0	201
08:00	0	138	35	1	10	0	0	0	0	0	0	0	0	184
09:00	0	88	22	0	8	0	0	0	0	0	0	0	0	118
10:00	0	94	27	0	2	0	0	0	0	0	0	0	0	123
11:00	0	109	17	0	4	1	0	1	0	0	0	0	0	132
12 PM	1	101	25	1	9	0	0	0	0	0	0	0	0	137
13:00	1	141	24	2	3	0	0	0	0	0	0	0	0	171
14:00	0	139	25	0	1	0	0	0	0	0	0	0	0	165
15:00	1	179	17	2	6	0	0	0	0	0	0	0	0	205
16:00	0	205	31	1	6	0	0	0	0	0	0	0	0	243
17:00	0	191	40	1	5	0	0	1	0	0	0	0	0	238
18:00	0	146	16	0	3	0	0	0	0	0	0	0	0	165
19:00	0	114	12	0	1	0	0	0	0	0	0	0	0	127
20:00	0	76	13	0	1	0	0	0	0	0	0	0	0	90
21:00	0	72	6	0	2	0	0	0	0	0	0	0	0	80
22:00	0	44	5	0	1	0	0	0	0	0	0	0	0	50
23:00	0	23	0	0	0	0	0	0	0	0	0	0	0	23
Total	3	2125	366	10	74	1	0	3	0	0	0	0	0	2582
Percent	0.1%	82.3%	14.2%	0.4%	2.9%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	08:00	06:00	08:00	11:00		06:00						07:00
Vol.		162	35	1	10	1		1						201
PM Peak	12:00	16:00	17:00	13:00	12:00			17:00						16:00
Vol.	1	205	40	2	9			1						243

#36 Water Street
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EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/06/1														
9	0	7	2	0	0	0	0	0	0	0	0	0	0	9
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
05:00	0	14	5	0	1	0	0	0	0	0	0	0	0	20
06:00	0	57	11	0	2	0	0	0	0	0	0	0	0	70
07:00	0	162	22	1	4	0	0	0	0	0	0	0	0	189
08:00	0	130	36	0	6	0	0	0	0	0	0	0	0	172
09:00	0	83	19	1	7	0	0	0	0	0	0	0	0	110
10:00	0	80	28	0	2	0	0	0	0	0	0	0	0	110
11:00	0	81	24	1	5	0	0	1	0	0	0	0	0	112
12 PM	0	101	28	0	2	0	0	0	0	0	0	0	0	131
13:00	0	142	24	1	6	0	0	1	0	0	0	0	0	174
14:00	0	128	24	0	4	0	0	0	0	0	0	0	0	156
15:00	0	174	32	1	7	0	0	0	0	0	0	0	0	214
16:00	1	209	47	0	1	0	0	0	0	0	0	0	0	258
17:00	1	217	22	0	3	0	0	0	0	0	0	0	0	243
18:00	3	146	19	0	0	0	0	0	0	0	0	0	0	168
19:00	2	123	14	0	0	0	0	0	0	0	0	0	0	139
20:00	4	97	8	0	0	0	0	0	0	0	0	0	0	109
21:00	1	63	4	0	1	0	0	0	0	0	0	0	0	69
22:00	0	41	3	0	0	0	0	0	0	0	0	0	0	44
23:00	2	37	2	0	2	0	0	0	0	0	0	0	0	43
Total	14	2102	375	5	53	0	0	2	0	0	0	0	0	2551
Percent	0.5%	82.4%	14.7%	0.2%	2.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		07:00	08:00	07:00	09:00			11:00						07:00
Vol.		162	36	1	7			1						189
PM Peak	20:00	17:00	16:00	13:00	15:00			13:00						16:00
Vol.	4	217	47	1	7			1						258

#36 Water Street
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EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/07/1														
9	1	9	3	0	0	0	0	0	0	0	0	0	0	13
01:00	0	9	0	0	0	0	0	0	0	0	0	0	0	9
02:00	1	3	1	0	0	0	0	0	0	0	0	0	0	5
03:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
04:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
05:00	1	16	5	0	0	0	0	0	0	0	0	0	0	22
06:00	1	71	13	0	4	0	0	0	0	0	0	0	0	89
07:00	1	159	29	0	7	0	0	0	0	0	0	0	0	196
08:00	1	125	31	1	3	0	0	0	0	0	0	0	0	161
09:00	0	116	31	0	2	0	0	0	0	0	0	0	0	149
10:00	2	115	25	0	5	1	0	0	0	0	0	0	0	148
11:00	1	119	27	0	9	0	0	2	0	0	0	0	0	158
12 PM	0	125	30	0	1	0	0	0	0	0	0	0	0	156
13:00	0	129	28	1	6	0	0	0	0	0	0	0	0	164
14:00	2	175	27	1	3	0	0	1	0	0	0	0	0	209
15:00	0	190	28	1	7	0	0	1	0	0	0	0	0	227
16:00	1	224	26	0	5	0	0	2	0	0	0	0	0	258
17:00	0	176	16	0	5	0	0	0	0	0	0	0	0	197
18:00	2	147	16	0	3	0	0	0	0	0	0	0	0	168
19:00	0	109	11	0	6	0	0	0	0	0	0	0	0	126
20:00	0	116	9	0	0	0	0	0	0	0	0	0	0	125
21:00	1	92	6	0	0	0	0	0	0	0	0	0	0	99
22:00	0	67	5	0	1	0	0	0	0	0	0	0	0	73
23:00	0	46	5	0	1	0	0	0	0	0	0	0	0	52
Total	15	2347	373	4	68	1	0	6	0	0	0	0	0	2814
Percent	0.5%	83.4%	13.3%	0.1%	2.4%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	08:00	08:00	11:00	10:00		11:00						07:00
Vol.	2	159	31	1	9	1		2						196
PM Peak	14:00	16:00	12:00	13:00	15:00			16:00						16:00
Vol.	2	224	30	1	7			2						258

#36 Water Street
 east of Front Street
 City, State: Beverly, MA
 Client: GPI / D. Halpert



PRECISION
 D A T A
 INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

197004 A Class
 Site Code: MAX-2019071

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/08/1														
9	0	16	2	0	0	0	0	0	0	0	0	0	0	18
01:00	0	21	0	0	1	0	0	0	0	0	0	0	0	22
02:00	0	6	2	0	0	0	0	0	0	0	0	0	0	8
03:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
04:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
05:00	0	10	3	0	0	0	0	0	0	0	0	0	0	13
06:00	0	44	15	0	3	0	1	1	0	0	0	0	0	64
07:00	0	52	18	1	2	0	0	0	0	0	0	0	0	73
08:00	0	91	20	0	3	0	0	1	0	0	0	0	0	115
09:00	1	125	19	2	1	0	1	0	0	0	0	0	0	149
10:00	0	143	28	1	5	0	0	0	0	0	0	0	0	177
11:00	1	176	22	1	4	0	1	0	0	0	0	0	0	205
12 PM	2	183	18	1	2	0	0	0	0	0	0	0	0	206
13:00	2	176	27	0	2	0	0	0	0	0	0	0	0	207
14:00	0	148	23	0	4	0	0	1	0	0	0	0	0	176
15:00	1	175	20	0	2	0	0	0	0	0	0	0	0	198
16:00	0	163	22	0	2	0	0	0	0	0	0	0	0	187
17:00	0	140	20	0	3	0	0	0	0	0	0	0	0	163
18:00	0	130	12	0	1	0	0	0	0	0	0	0	0	143
19:00	1	130	14	0	4	0	0	0	0	0	0	0	0	149
20:00	1	104	6	0	0	0	0	0	0	0	0	0	0	111
21:00	0	78	6	1	1	0	0	0	0	0	0	0	0	86
22:00	0	67	4	0	0	0	0	0	0	0	0	0	0	71
23:00	0	47	2	0	0	0	0	0	0	0	0	0	0	49
Total	9	2237	304	7	40	0	3	3	0	0	0	0	0	2603
Percent	0.3%	85.9%	11.7%	0.3%	1.5%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	10:00	09:00	10:00		06:00	06:00						11:00
Vol.	1	176	28	2	5		1	1						205
PM Peak	12:00	12:00	13:00	12:00	14:00			14:00						13:00
Vol.	2	183	27	1	4			1						207

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WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/05/1														
9	0	5	0	0	0	0	0	0	0	0	0	0	0	5
01:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
05:00	0	22	7	0	0	0	0	0	0	0	0	0	0	29
06:00	0	62	13	1	3	0	0	0	0	0	0	0	0	79
07:00	0	142	33	1	4	0	0	0	0	0	0	0	0	180
08:00	0	155	32	1	6	0	0	0	0	0	0	0	0	194
09:00	0	95	15	0	7	0	0	0	0	0	0	0	0	117
10:00	0	75	18	0	3	0	0	0	0	0	0	0	0	96
11:00	0	98	27	0	8	0	0	0	0	0	0	0	0	133
12 PM	2	103	18	1	11	0	0	1	0	0	0	0	0	136
13:00	1	102	20	0	7	0	0	0	0	0	0	0	0	130
14:00	1	130	19	2	8	0	0	0	0	0	0	0	0	160
15:00	1	137	36	1	6	0	0	1	0	0	0	0	0	182
16:00	0	120	21	1	8	0	0	0	0	0	0	0	0	150
17:00	1	178	22	0	6	0	0	0	0	0	0	0	0	207
18:00	0	122	22	0	1	0	0	0	0	0	0	0	0	145
19:00	0	104	14	0	4	0	0	1	0	0	0	0	0	123
20:00	0	73	15	0	1	0	0	0	0	0	0	0	0	89
21:00	0	53	8	0	5	0	0	0	0	0	0	0	0	66
22:00	0	40	3	0	0	0	0	0	0	0	0	0	0	43
23:00	0	21	1	0	0	0	0	0	0	0	0	0	0	22
Total	6	1850	344	8	88	0	0	3	0	0	0	0	0	2299
Percent	0.3%	80.5%	15.0%	0.3%	3.8%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.		08:00	07:00	06:00	11:00									08:00
		155	33	1	8									194
PM Peak Vol.	12:00	17:00	15:00	14:00	12:00			12:00						17:00
	2	178	36	2	11			1						207

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WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/06/1														
9	0	4	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
05:00	0	10	5	0	0	0	0	0	0	0	0	0	0	15
06:00	0	69	18	1	3	0	0	0	0	0	0	0	0	91
07:00	0	120	27	1	7	1	0	0	0	0	0	0	0	156
08:00	0	140	11	4	13	0	0	0	0	0	0	0	0	168
09:00	0	87	4	15	8	0	0	0	0	0	0	0	0	114
10:00	0	51	19	2	6	0	0	0	0	0	0	0	0	78
11:00	0	44	22	2	14	0	0	1	0	0	0	0	0	83
12 PM	0	103	16	0	4	0	0	0	0	0	0	0	0	123
13:00	1	98	12	0	3	0	0	1	0	0	0	0	0	115
14:00	14	114	8	1	1	0	0	0	0	0	0	0	0	138
15:00	13	152	2	1	4	0	0	0	0	0	0	0	0	172
16:00	5	133	6	0	1	0	0	0	0	0	0	0	0	145
17:00	1	172	1	0	0	0	0	0	0	0	0	0	0	174
18:00	0	131	0	0	0	0	0	0	0	0	0	0	0	131
19:00	1	100	7	0	1	0	0	0	0	0	0	0	0	109
20:00	1	91	2	0	0	0	0	0	0	0	0	0	0	94
21:00	0	70	4	0	0	0	0	0	0	0	0	0	0	74
22:00	0	35	6	0	0	0	0	0	0	0	0	0	0	41
23:00	0	25	1	0	0	0	0	0	0	0	0	0	0	26
Total	36	1764	173	27	65	1	0	2	0	0	0	0	0	2068
Percent	1.7%	85.3%	8.4%	1.3%	3.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		08:00	07:00	09:00	11:00	07:00		11:00						08:00
Vol.		140	27	15	14	1		1						168
PM Peak	14:00	17:00	12:00	14:00	12:00			13:00						17:00
Vol.	14	172	16	1	4			1						174

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WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/07/1														
9	0	6	0	0	0	0	0	0	0	0	0	0	0	6
01:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
02:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
05:00	0	19	1	0	0	0	0	0	0	0	0	0	0	20
06:00	0	70	1	2	2	0	0	0	0	0	0	0	0	75
07:00	1	136	5	1	0	0	0	0	0	0	0	0	0	143
08:00	7	135	7	2	3	0	0	0	0	0	0	0	0	154
09:00	2	94	8	0	1	0	0	1	0	0	0	0	0	106
10:00	0	107	4	0	2	0	0	0	0	0	0	0	0	113
11:00	1	116	8	1	9	0	0	0	0	0	0	0	0	135
12 PM	0	116	10	0	3	0	0	0	0	0	0	0	0	129
13:00	1	152	8	0	2	0	1	0	0	0	0	0	0	164
14:00	1	160	10	2	3	0	0	0	0	0	0	0	0	176
15:00	1	192	3	0	1	0	0	0	0	0	0	0	0	197
16:00	0	146	10	1	1	0	0	0	0	0	0	0	0	158
17:00	0	163	8	0	1	0	0	0	0	0	0	0	0	172
18:00	1	127	3	0	3	0	0	0	0	0	0	0	0	134
19:00	0	86	10	0	0	0	0	0	0	0	0	0	0	96
20:00	0	92	7	0	1	0	0	0	0	0	0	0	0	100
21:00	1	73	4	0	1	0	0	0	0	0	0	0	0	79
22:00	0	48	4	0	0	0	0	0	0	0	0	0	0	52
23:00	0	36	3	0	1	0	0	0	0	0	0	0	0	40
Total	16	2091	116	9	34	0	1	1	0	0	0	0	0	2268
Percent	0.7%	92.2%	5.1%	0.4%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	09:00	06:00	11:00			09:00						08:00
Vol.	7	136	8	2	9			1						154
PM Peak	13:00	15:00	12:00	14:00	12:00		13:00							15:00
Vol.	1	192	10	2	3		1							197

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WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
06/08/1														
9	0	12	2	0	0	0	0	0	0	0	0	0	0	14
01:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
02:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	4	0	0	1	0	0	0	0	0	0	0	0	5
05:00	0	10	1	0	0	0	0	0	0	0	0	0	0	11
06:00	0	20	7	0	2	0	0	0	0	0	0	0	0	29
07:00	0	49	7	0	2	0	0	1	0	0	0	0	0	59
08:00	0	79	7	0	2	0	0	0	0	0	0	0	0	88
09:00	1	114	6	0	0	0	0	0	0	0	0	0	0	121
10:00	0	113	13	1	14	0	0	0	0	0	0	0	0	141
11:00	0	127	7	1	4	0	0	0	0	0	0	0	0	139
12 PM	1	128	7	0	0	0	0	0	0	0	0	0	0	136
13:00	3	132	14	0	4	0	0	0	0	0	0	0	0	153
14:00	0	133	7	0	3	0	0	0	0	0	0	0	0	143
15:00	0	131	5	0	1	0	0	0	0	0	0	0	0	137
16:00	0	169	11	0	0	0	0	0	0	0	0	0	0	180
17:00	1	167	4	0	3	0	0	0	0	0	0	0	0	175
18:00	0	157	7	1	2	0	0	0	0	0	0	0	0	167
19:00	1	100	3	0	0	0	0	0	0	0	0	0	0	104
20:00	0	91	4	0	2	0	0	0	0	0	0	0	0	97
21:00	0	67	3	0	1	0	0	0	0	0	0	0	0	71
22:00	0	56	1	0	1	0	0	0	0	0	0	0	0	58
23:00	0	36	1	0	0	0	0	0	0	0	0	0	0	37
Total	7	1906	117	3	42	0	0	1	0	0	0	0	0	2076
Percent	0.3%	91.8%	5.6%	0.1%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	11:00	10:00	10:00	10:00			07:00						10:00
Vol.	1	127	13	1	14			1						141
PM Peak	13:00	16:00	13:00	18:00	13:00									16:00
Vol.	3	169	14	1	4									180

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197004 A Speed
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EB	Start Time	14	15	19	20	24	25	29	30	34	35	39	40	44	45	49	50	54	55	59	60	64	65	69	70	9999	Total	85th Perce	Avera (Mean
06/05/	19	0	0	5	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	32	27	
	01:00	1	0	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	28	23	
	02:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	33	32	
	03:00	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	31	27	
	04:00	0	0	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	28	26	
	05:00	1	3	5	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	29	24	
	06:00	1	7	31	31	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	28	25	
	07:00	0	9	47	116	28	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	201	28	26	
	08:00	1	13	68	84	16	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	184	28	25	
	09:00	1	6	30	63	15	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118	29	26	
	10:00	1	9	41	54	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	123	28	25	
	11:00	8	8	36	64	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	132	28	25	
	12 PM	1	9	36	71	19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	137	28	26	
	13:00	5	15	50	82	18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	171	28	25	
	14:00	2	12	43	80	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	165	29	26	
	15:00	4	12	73	94	21	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	205	28	25	
	16:00	3	7	71	122	35	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	243	29	26	
	17:00	2	30	86	97	22	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	238	28	24	
	18:00	2	13	40	86	21	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	165	28	26	
	19:00	1	10	51	52	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	28	25	
	20:00	2	7	26	36	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	30	26	
	21:00	1	3	24	35	15	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	30	26	
	22:00	0	1	14	27	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	29	26	
	23:00	0	0	7	12	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	29	26	
	Total	37	174	790	1224	328	28	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2582			
	%	1.4%	6.7%	30.6%	47.4%	12.7%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
AM Peak	11:00	08:00	08:00	07:00	07:00	09:00	08:00																				07:00		
Vol.	8	13	68	116	28	3	1																				201		
PM Peak	13:00	17:00	17:00	16:00	16:00	16:00																					16:00		
Vol.	5	30	86	122	35	5																					243		

Stats

15th Percentile : 20 MPH
50th Percentile : 25 MPH
85th Percentile : 28 MPH
95th Percentile : 32 MPH

Mean Speed(Average) : 25 MPH
10 MPH Pace Speed : 20-29 MPH
Number in Pace : 2014
Percent in Pace : 78.0%
Number of Vehicles > 25 MPH : 1336
Percent of Vehicles > 25 MPH : 51.8%

#36 Water Street
 east of Front Street
 City, State: Beverly, MA
 Client: GPI / D. Halpert



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

197004 A Speed
 Site Code: MAX-2019071

EB	Start Time	1	15	20	25	30	35	40	45	50	55	60	65	70	Total	85th Perce	Avera (Mean	
		14	19	24	29	34	39	44	49	54	59	64	69	9999				
06/06/																		
19	0	0	4	3	2	0	0	0	0	0	0	0	0	0	9	30	26	
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
02:00	0	0	3	2	0	0	0	0	0	0	0	0	0	0	5	27	24	
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	28	27	
04:00	0	0	1	3	0	1	0	0	0	0	0	0	0	0	5	35	28	
05:00	0	2	3	10	5	0	0	0	0	0	0	0	0	0	20	31	26	
06:00	1	1	17	30	18	3	0	0	0	0	0	0	0	0	70	31	27	
07:00	0	11	33	98	45	1	1	0	0	0	0	0	0	0	189	31	27	
08:00	4	7	49	86	24	2	0	0	0	0	0	0	0	0	172	29	26	
09:00	3	13	41	37	16	0	0	0	0	0	0	0	0	0	110	28	24	
10:00	3	7	41	48	10	1	0	0	0	0	0	0	0	0	110	28	25	
11:00	3	5	38	51	14	1	0	0	0	0	0	0	0	0	112	28	25	
12 PM	1	14	42	59	11	4	0	0	0	0	0	0	0	0	131	28	25	
13:00	2	18	62	71	21	0	0	0	0	0	0	0	0	0	174	28	25	
14:00	1	8	32	88	26	1	0	0	0	0	0	0	0	0	156	29	26	
15:00	0	13	83	103	13	2	0	0	0	0	0	0	0	0	214	28	25	
16:00	2	15	62	135	42	2	0	0	0	0	0	0	0	0	258	29	26	
17:00	1	25	74	106	34	3	0	0	0	0	0	0	0	0	243	29	25	
18:00	1	10	35	92	26	4	0	0	0	0	0	0	0	0	168	29	26	
19:00	4	10	48	60	17	0	0	0	0	0	0	0	0	0	139	28	25	
20:00	1	6	30	52	17	3	0	0	0	0	0	0	0	0	109	30	26	
21:00	1	4	16	37	10	1	0	0	0	0	0	0	0	0	69	29	26	
22:00	1	2	15	20	6	0	0	0	0	0	0	0	0	0	44	28	25	
23:00	0	3	10	23	6	1	0	0	0	0	0	0	0	0	43	29	26	
Total	29	174	739	1215	363	30	1	0	0	0	0	0	0	0	2551			
%	1.1%	6.8%	29.0%	47.6%	14.2%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
AM Peak	08:00	09:00	08:00	07:00	07:00	06:00	07:00									07:00		
Vol.	4	13	49	98	45	3	1									189		
PM Peak	19:00	17:00	15:00	16:00	16:00	12:00									16:00			
Vol.	4	25	83	135	42	4									258			

Stats

15th Percentile : 20 MPH
 50th Percentile : 25 MPH
 85th Percentile : 29 MPH
 95th Percentile : 32 MPH

Mean Speed(Average) : 25 MPH
 10 MPH Pace Speed : 20-29 MPH
 Number in Pace : 1954
 Percent in Pace : 76.6%
 Number of Vehicles > 25 MPH : 1366
 Percent of Vehicles > 25 MPH : 53.5%

#36 Water Street
 east of Front Street
 City, State: Beverly, MA
 Client: GPI / D. Halpert



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

197004 A Speed
 Site Code: MAX-2019071

EB	Start Time	14	15	19	20	24	25	29	30	34	35	39	40	44	45	49	50	54	55	59	60	64	65	69	70	9999	Total	85th Perce	Avera (Mean
06/07/	19	0	1	3	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	27	25	
	01:00	0	0	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	28	26	
	02:00	0	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	32	27	
	03:00	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	31	27	
	04:00	2	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	31	23	
	05:00	1	4	0	12	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	30	25	
	06:00	2	4	27	43	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89	28	25	
	07:00	1	13	49	87	44	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	196	30	26	
	08:00	2	8	25	108	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	161	28	26	
	09:00	5	10	52	63	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149	28	25	
	10:00	8	28	50	53	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148	27	23	
	11:00	6	18	59	56	18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	28	24	
	12 PM	1	8	49	75	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156	28	26	
	13:00	3	24	60	62	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	164	28	24	
	14:00	9	13	62	98	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	209	28	25	
	15:00	5	39	104	67	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	227	27	23	
	16:00	5	14	73	120	44	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	258	29	26	
	17:00	1	4	56	101	33	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	197	29	26	
	18:00	0	10	40	93	22	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	168	28	26	
	19:00	0	6	51	52	15	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	126	28	25	
	20:00	0	5	36	68	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	125	28	26	
	21:00	1	4	32	42	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	30	26	
	22:00	0	3	15	40	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	30	27	
	23:00	1	2	12	29	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	29	26	
	Total	53	219	860	1287	367	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2814			
	%	1.9%	7.8%	30.6%	45.7%	13.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
	AM Peak	10:00	10:00	11:00	08:00	07:00	07:00																				07:00		
	Vol.	8	28	59	108	44	2																				196		
	PM Peak	14:00	15:00	15:00	16:00	16:00	13:00																				16:00		
	Vol.	9	39	104	120	44	4																				258		

Stats

15th Percentile : 19 MPH
 50th Percentile : 25 MPH
 85th Percentile : 28 MPH
 95th Percentile : 32 MPH

Mean Speed(Average) : 25 MPH
 10 MPH Pace Speed : 20-29 MPH
 Number in Pace : 2147
 Percent in Pace : 76.3%
 Number of Vehicles > 25 MPH : 1425
 Percent of Vehicles > 25 MPH : 50.6%

#36 Water Street
 east of Front Street
 City, State: Beverly, MA
 Client: GPI / D. Halpert



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

197004 A Speed
 Site Code: MAX-2019071

EB	Start Time	14	15	19	20	24	25	29	30	34	35	39	40	44	45	49	50	54	55	59	60	64	65	69	70	9999	Total	85th Perce	Avera (Mean
06/08/	19	0	1	2	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	28	26	
	01:00	0	0	4	13	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	30	27	
	02:00	0	0	1	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	28	27	
	03:00	0	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	27	24	
	04:00	0	0	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	33	28	
	05:00	0	1	5	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	28	25	
	06:00	0	5	17	30	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64	30	26	
	07:00	0	9	24	32	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	28	25	
	08:00	1	15	35	49	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115	28	25	
	09:00	0	25	56	53	14	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149	28	24	
	10:00	3	24	58	67	23	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	177	28	24	
	11:00	2	14	90	78	19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	205	28	24	
	12 PM	3	25	76	80	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	28	24	
	13:00	0	9	76	102	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	207	28	25	
	14:00	1	11	66	76	21	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	176	28	25	
	15:00	0	10	63	92	32	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	198	29	26	
	16:00	0	10	67	74	32	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	187	30	26	
	17:00	4	13	49	79	15	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	163	28	25	
	18:00	1	9	53	65	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	143	28	25	
	19:00	2	10	64	58	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149	28	24	
	20:00	1	4	34	48	23	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	30	26	
	21:00	1	1	31	44	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	28	25	
	22:00	2	3	23	31	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	29	25	
	23:00	0	0	8	29	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	31	28	
	Total	21	200	905	1131	318	25	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2603			
	%	0.8%	7.7%	34.8%	43.4%	12.2%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
AM Peak	Vol.	3	25	90	78	23	2	1																		205			
PM Peak	Vol.	4	25	76	102	32	4	1																		207			

Stats

15th Percentile : 19 MPH
 50th Percentile : 24 MPH
 85th Percentile : 28 MPH
 95th Percentile : 32 MPH

Mean Speed(Average) : 25 MPH
 10 MPH Pace Speed : 20-29 MPH
 Number in Pace : 2036
 Percent in Pace : 78.2%
 Number of Vehicles > 25 MPH : 1251
 Percent of Vehicles > 25 MPH : 48.1%

#36 Water Street
 east of Front Street
 City, State: Beverly, MA
 Client: GPI / D. Halpert



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

197004 A Speed
 Site Code: MAX-2019071

WB

Start Time	1 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th Perce	Avera (Mean
06/05/																
19	0	0	2	2	1	0	0	0	0	0	0	0	0	5	30	26
01:00	0	1	1	1	2	0	0	0	0	0	0	0	0	5	32	26
02:00	0	1	0	2	1	0	0	0	0	0	0	0	0	4	31	26
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	1	2	1	0	0	0	0	0	0	0	4	36	32
05:00	0	2	7	13	7	0	0	0	0	0	0	0	0	29	30	26
06:00	1	3	23	41	8	3	0	0	0	0	0	0	0	79	28	26
07:00	4	14	55	88	16	3	0	0	0	0	0	0	0	180	28	25
08:00	9	20	81	69	13	2	0	0	0	0	0	0	0	194	27	23
09:00	0	4	16	65	31	1	0	0	0	0	0	0	0	117	31	27
10:00	0	4	30	50	11	1	0	0	0	0	0	0	0	96	28	26
11:00	4	16	42	56	11	3	1	0	0	0	0	0	0	133	28	24
12 PM	4	5	59	53	13	2	0	0	0	0	0	0	0	136	28	25
13:00	2	24	38	56	8	2	0	0	0	0	0	0	0	130	28	24
14:00	2	28	57	59	13	1	0	0	0	0	0	0	0	160	28	24
15:00	14	32	73	53	10	0	0	0	0	0	0	0	0	182	27	22
16:00	3	20	50	66	11	0	0	0	0	0	0	0	0	150	28	24
17:00	27	49	77	46	8	0	0	0	0	0	0	0	0	207	26	20
18:00	7	25	51	53	9	0	0	0	0	0	0	0	0	145	27	23
19:00	4	13	57	43	5	1	0	0	0	0	0	0	0	123	27	23
20:00	0	13	39	31	6	0	0	0	0	0	0	0	0	89	27	24
21:00	3	5	17	28	12	1	0	0	0	0	0	0	0	66	30	25
22:00	1	1	9	19	12	1	0	0	0	0	0	0	0	43	31	27
23:00	0	0	4	14	4	0	0	0	0	0	0	0	0	22	29	27
Total	85	280	788	909	214	22	1	0	0	0	0	0	0	2299		
%	3.7%	12.2%	34.3%	39.5%	9.3%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	07:00	09:00	06:00	11:00							08:00		
Vol.	9	20	81	88	31	3	1							194		
PM Peak	17:00	17:00	17:00	16:00	12:00	12:00								17:00		
Vol.	27	49	77	66	13	2								207		

Stats
 15th Percentile : 18 MPH
 50th Percentile : 23 MPH
 85th Percentile : 28 MPH
 95th Percentile : 31 MPH

Mean Speed(Average) : 24 MPH
 10 MPH Pace Speed : 20-29 MPH
 Number in Pace : 1697
 Percent in Pace : 73.8%
 Number of Vehicles > 25 MPH : 964
 Percent of Vehicles > 25 MPH : 41.9%

#36 Water Street
 east of Front Street
 City, State: Beverly, MA
 Client: GPI / D. Halpert



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 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

197004 A Speed
 Site Code: MAX-2019071

WB

Start Time	14	15	19	20	24	25	29	30	34	35	39	40	44	45	49	50	54	55	59	60	64	65	69	70	9999	Total	85th Perce	Avera (Mean
06/06/19	0	0	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	36	28
01:00	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	31	29
02:00	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	27	24
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	28	27
04:00	0	0	0	2	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	31	27
05:00	0	0	3	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	32	28
06:00	1	4	34	38	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91	29	25
07:00	7	15	53	68	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156	28	24
08:00	1	13	43	56	41	3	4	2	3	0	0	2	3	0	0	2	0	0	0	0	0	2	0	0	0	168	32	28
09:00	1	1	44	25	16	1	3	3	7	5	1	2	5	1	2	5	114	46	31									
10:00	1	4	26	27	10	4	3	1	1	1	0	0	0	0	0	0	78	33	27									
11:00	5	8	17	28	12	10	2	1	0	0	0	0	0	0	0	0	83	34	26									
12 PM	6	19	65	27	5	1	0	0	0	0	0	0	0	0	0	0	123	26	22									
13:00	4	29	49	27	6	0	0	0	0	0	0	0	0	0	0	0	115	26	22									
14:00	5	32	54	43	4	0	0	0	0	0	0	0	0	0	0	0	138	27	22									
15:00	9	26	100	36	1	0	0	0	0	0	0	0	0	0	0	0	172	25	22									
16:00	3	7	51	84	0	0	0	0	0	0	0	0	0	0	0	0	145	27	24									
17:00	2	0	72	93	7	0	0	0	0	0	0	0	0	0	0	0	174	27	25									
18:00	0	1	20	109	1	0	0	0	0	0	0	0	0	0	0	0	131	28	26									
19:00	1	1	45	60	2	0	0	0	0	0	0	0	0	0	0	0	109	27	25									
20:00	1	2	33	57	1	0	0	0	0	0	0	0	0	0	0	0	94	27	25									
21:00	0	0	15	54	3	2	0	0	0	0	0	0	0	0	0	0	74	28	26									
22:00	0	1	14	21	5	0	0	0	0	0	0	0	0	0	0	0	41	28	26									
23:00	0	0	4	18	4	0	0	0	0	0	0	0	0	0	0	0	26	29	27									
Total	47	164	746	887	154	24	12	7	11	6	1	4	5	2068														
%	2.3%	7.9%	36.1%	42.9%	7.4%	1.2%	0.6%	0.3%	0.5%	0.3%	0.0%	0.2%	0.2%															
AM Peak	07:00	07:00	07:00	07:00	08:00	11:00	08:00	09:00	09:00	09:00	09:00	08:00	09:00	08:00														
Vol.	7	15	53	68	41	10	4	3	7	5	1	2	5	168														
PM Peak	15:00	14:00	15:00	18:00	17:00	21:00	17:00																					
Vol.	9	32	100	109	7	2	174																					

Stats

15th Percentile : 19 MPH
 50th Percentile : 24 MPH
 85th Percentile : 28 MPH
 95th Percentile : 32 MPH

Mean Speed(Average) : 25 MPH
 10 MPH Pace Speed : 20-29 MPH
 Number in Pace : 1633
 Percent in Pace : 79.0%
 Number of Vehicles > 25 MPH : 934
 Percent of Vehicles > 25 MPH : 45.1%

#36 Water Street
 east of Front Street
 City, State: Beverly, MA
 Client: GPI / D. Halpert



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

197004 A Speed
 Site Code: MAX-2019071

WB

Start Time	1	15	20	25	30	35	40	45	50	55	60	65	70	Total	85th Perce	Avera (Mean
	14	19	24	29	34	39	44	49	54	59	64	69	9999			
06/07/																
19	0	0	0	6	0	0	0	0	0	0	0	0	0	6	28	27
01:00	0	0	0	6	0	0	0	0	0	0	0	0	0	6	28	27
02:00	0	0	1	2	0	0	0	0	0	0	0	0	0	3	27	25
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	1	6	3	0	0	0	0	0	0	0	0	10	31	28
05:00	0	0	1	17	2	0	0	0	0	0	0	0	0	20	28	27
06:00	0	2	29	44	0	0	0	0	0	0	0	0	0	75	27	25
07:00	1	8	42	89	3	0	0	0	0	0	0	0	0	143	27	25
08:00	3	19	55	75	1	1	0	0	0	0	0	0	0	154	27	24
09:00	2	14	59	28	2	1	0	0	0	0	0	0	0	106	26	23
10:00	3	17	63	28	2	0	0	0	0	0	0	0	0	113	26	22
11:00	7	18	68	36	4	2	0	0	0	0	0	0	0	135	27	22
12 PM	4	18	59	46	2	0	0	0	0	0	0	0	0	129	27	23
13:00	14	33	103	11	3	0	0	0	0	0	0	0	0	164	23	20
14:00	9	25	90	52	0	0	0	0	0	0	0	0	0	176	26	22
15:00	27	4	145	21	0	0	0	0	0	0	0	0	0	197	23	20
16:00	5	16	75	60	2	0	0	0	0	0	0	0	0	158	27	23
17:00	3	19	75	75	0	0	0	0	0	0	0	0	0	172	27	23
18:00	2	27	50	54	0	1	0	0	0	0	0	0	0	134	27	23
19:00	1	17	51	24	3	0	0	0	0	0	0	0	0	96	26	23
20:00	1	13	54	27	4	1	0	0	0	0	0	0	0	100	27	23
21:00	0	8	21	45	4	1	0	0	0	0	0	0	0	79	28	25
22:00	0	4	11	29	7	1	0	0	0	0	0	0	0	52	29	26
23:00	0	1	8	22	7	1	1	0	0	0	0	0	0	40	31	27
Total	82	263	1061	803	49	9	1	0	0	0	0	0	0	2268		
%	3.6%	11.6%	46.8%	35.4%	2.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	08:00	11:00	07:00	11:00	11:00								08:00		
Vol.	7	19	68	89	4	2								154		
PM Peak	15:00	13:00	15:00	17:00	22:00	18:00	23:00							15:00		
Vol.	27	33	145	75	7	1	1							197		

Stats

15th Percentile : 18 MPH
 50th Percentile : 22 MPH
 85th Percentile : 27 MPH
 95th Percentile : 28 MPH

Mean Speed(Average) : 23 MPH
 10 MPH Pace Speed : 20-29 MPH
 Number in Pace : 1864
 Percent in Pace : 82.2%
 Number of Vehicles > 25 MPH : 701
 Percent of Vehicles > 25 MPH : 30.9%

#36 Water Street
 east of Front Street
 City, State: Beverly, MA
 Client: GPI / D. Halpert



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

197004 A Speed
 Site Code: MAX-2019071

WB	Start Time	14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th Perce	Avera (Mean
06/08/																	
	19	0	1	1	10	2	0	0	0	0	0	0	0	0	14	28	27
	01:00	0	0	2	1	1	0	0	0	0	0	0	0	0	4	31	26
	02:00	0	1	0	5	0	0	0	0	0	0	0	0	0	6	28	25
	03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1	28	27
	04:00	0	0	1	3	1	0	0	0	0	0	0	0	0	5	30	27
	05:00	0	0	5	5	1	0	0	0	0	0	0	0	0	11	28	25
	06:00	2	2	6	13	4	1	1	0	0	0	0	0	0	29	31	25
	07:00	1	4	24	28	2	0	0	0	0	0	0	0	0	59	27	24
	08:00	1	4	39	39	4	1	0	0	0	0	0	0	0	88	27	24
	09:00	2	8	69	40	2	0	0	0	0	0	0	0	0	121	26	23
	10:00	1	14	54	58	9	2	1	1	1	0	0	0	0	141	28	25
	11:00	5	20	80	32	2	0	0	0	0	0	0	0	0	139	26	22
	12 PM	5	9	75	47	0	0	0	0	0	0	0	0	0	136	26	23
	13:00	7	12	70	59	3	1	1	0	0	0	0	0	0	153	27	23
	14:00	2	17	69	51	3	1	0	0	0	0	0	0	0	143	27	23
	15:00	4	16	63	51	3	0	0	0	0	0	0	0	0	137	27	23
	16:00	6	22	84	63	5	0	0	0	0	0	0	0	0	180	27	23
	17:00	9	25	97	44	0	0	0	0	0	0	0	0	0	175	26	22
	18:00	8	14	83	60	2	0	0	0	0	0	0	0	0	167	27	23
	19:00	5	16	67	15	1	0	0	0	0	0	0	0	0	104	24	21
	20:00	1	13	50	31	2	0	0	0	0	0	0	0	0	97	26	23
	21:00	1	3	27	37	3	0	0	0	0	0	0	0	0	71	27	25
	22:00	0	4	24	30	0	0	0	0	0	0	0	0	0	58	27	24
	23:00	0	1	11	18	4	2	0	1	0	0	0	0	0	37	30	27
	Total	60	206	1001	741	54	8	3	2	1	0	0	0	0	2076		
	%	2.9%	9.9%	48.2%	35.7%	2.6%	0.4%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	10:00	10:00	10:00	10:00	06:00	10:00	10:00					10:00		
Vol.	5	20	80	58	9	2	1	1	1	1					141		
PM Peak	17:00	17:00	17:00	16:00	16:00	23:00	13:00	23:00							16:00		
Vol.	9	25	97	63	5	2	1	1							180		

Stats

15th Percentile : 19 MPH
 50th Percentile : 22 MPH
 85th Percentile : 27 MPH
 95th Percentile : 28 MPH

Mean Speed(Average) : 23 MPH
 10 MPH Pace Speed : 20-29 MPH
 Number in Pace : 1742
 Percent in Pace : 83.9%
 Number of Vehicles > 25 MPH : 661
 Percent of Vehicles > 25 MPH : 31.8%

PDI File #: 197004 A

Location: N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)

Location: E: Front Street W: Goat Hill Lane SE: Water Street

City, State: Beverly, MA

Client: GPI/ D. Halpert

Site Code: 2019071

Count Date: Thursday, May 30, 2019

Start Time: 4:00 PM

End Time: 6:00 PM

Class:



PRECISION DATA INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

Table with columns for Cabot Street (Route 1A), Front Street, Water Street, Cabot Street (Route 1A), and Goat Hill Lane. Rows include time intervals (4:00 PM to 5:45 PM), Grand Total, and percentages for Approach, Total, and Exiting Leg.

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

Table showing peak hour analysis for 4:15 PM. Columns include Cabot Street (Route 1A), Front Street, Water Street, Cabot Street (Route 1A), and Goat Hill Lane. Rows include time intervals (4:15 PM to 5:00 PM), Total Volume, % Approach Total, PHF, and various vehicle counts and percentages.

PDI File #: **197004 A**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars

	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:00 PM	1	191	7	0	0	199	1	0	1	0	0	2	0	0	1	29	0	30	48	0	248	11	0	307	0	4	0	8	0	12	550
4:15 PM	0	204	4	0	0	208	2	0	4	0	0	6	0	1	2	42	0	45	62	0	213	17	0	292	0	5	0	2	0	7	558
4:30 PM	0	129	6	0	0	135	1	1	14	1	0	17	0	2	1	34	0	37	109	0	149	19	0	277	0	3	0	1	0	4	470
4:45 PM	0	124	3	0	0	127	2	1	23	0	0	26	0	4	1	40	0	45	143	0	149	25	0	317	1	10	0	4	0	15	530
Total	1	648	20	0	0	669	6	2	42	1	0	51	0	7	5	145	0	157	362	0	759	72	0	1193	1	22	0	15	0	38	2108
5:00 PM	2	128	5	0	0	135	1	0	22	0	0	23	0	1	0	34	0	35	167	0	160	32	0	359	0	8	0	5	0	13	565
5:15 PM	0	119	4	0	0	123	2	1	27	0	0	30	0	1	1	50	0	52	135	0	133	10	0	278	2	3	0	4	0	9	492
5:30 PM	1	150	2	0	0	153	3	0	19	0	0	22	0	1	0	47	0	48	119	0	164	17	0	300	1	3	0	1	0	5	528
5:45 PM	1	120	2	0	0	123	4	0	22	1	0	27	0	1	2	36	0	39	95	0	133	25	0	253	0	10	0	3	0	13	455
Total	4	517	13	0	0	534	10	1	90	1	0	102	0	4	3	167	0	174	516	0	590	84	0	1190	3	24	0	13	0	40	2040
Grand Total	5	1165	33	0	0	1203	16	3	132	2	0	153	0	11	8	312	0	331	878	0	1349	156	0	2383	4	46	0	28	0	78	4148
Approach %	0.4	96.8	2.7	0.0	0.0		10.5	2.0	86.3	1.3	0.0		0.0	3.3	2.4	94.3	0.0		36.8	0.0	56.6	6.5	0.0		5.1	59.0	0.0	35.9	0.0		
Total %	0.1	28.1	0.8	0.0	0.0	29.0	0.4	0.1	3.2	0.0	0.0	3.7	0.0	0.3	0.2	7.5	0.0	8.0	21.2	0.0	32.5	3.8	0.0	57.4	0.1	1.1	0.0	0.7	0.0	1.9	
Exiting Leg Total	1404						0						959						1613						172		4148				

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:15 PM	0	204	4	0	0	208	2	0	4	0	0	6	0	1	2	42	0	45	62	0	213	17	0	292	0	5	0	2	0	7	558
4:30 PM	0	129	6	0	0	135	1	1	14	1	0	17	0	2	1	34	0	37	109	0	149	19	0	277	0	3	0	1	0	4	470
4:45 PM	0	124	3	0	0	127	2	1	23	0	0	26	0	4	1	40	0	45	143	0	149	25	0	317	1	10	0	4	0	15	530
5:00 PM	2	128	5	0	0	135	1	0	22	0	0	23	0	1	0	34	0	35	167	0	160	32	0	359	0	8	0	5	0	13	565
Total Volume	2	585	18	0	0	605	6	2	63	1	0	72	0	8	4	150	0	162	481	0	671	93	0	1245	1	26	0	12	0	39	2123
% Approach Total	0.3	96.7	3.0	0.0	0.0		8.3	2.8	87.5	1.4	0.0		0.0	4.9	2.5	92.6	0.0		38.6	0.0	53.9	7.5	0.0		2.6	66.7	0.0	30.8	0.0		
PHF	0.250	0.717	0.750	0.000	0.000	0.727	0.750	0.500	0.685	0.250	0.000	0.692	0.000	0.500	0.500	0.893	0.000	0.900	0.720	0.000	0.788	0.727	0.000	0.867	0.250	0.650	0.000	0.600	0.000	0.650	0.939
Entering Leg	2	585	18	0	0	605	6	2	63	1	0	72	0	8	4	150	0	162	481	0	671	93	0	1245	1	26	0	12	0	39	2123
Exiting Leg	697						0						526						799						101		2123				
Total	1302						72						688						2044						140		4246				

PDI File #: **197004 A**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total	
	from North						from East						from Southeast						from South						from West							
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total		
4:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	6	0	0	6	0	0	0	0	0	0	11
4:15 PM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0	2	0	0	5	0	0	0	0	0	0	11
4:30 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	6	0	0	0	0	0	0	10
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	6	0	0	0	0	0	0	6
Total	0	13	0	0	0	13	0	0	0	0	0	0	0	0	0	0	2	0	2	6	0	17	0	0	23	0	0	0	0	0	0	38
5:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	7	0	0	0	0	0	0	10
5:15 PM	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	0	4	
5:30 PM	0	1	0	0	0	1	0	0	2	0	0	2	0	1	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	5	
5:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	4	0	0	0	0	0	0	5	
Total	0	6	0	0	0	6	0	0	3	0	0	3	0	1	0	1	0	2	4	0	9	0	0	13	0	0	0	0	0	0	24	
Grand Total	0	19	0	0	0	19	0	0	3	0	0	3	0	1	0	3	0	4	10	0	26	0	0	36	0	0	0	0	0	0	62	
Approach %	0.0	100.0	0.0	0.0	0.0	31.6	0.0	0.0	100.0	0.0	0.0	0.0	0.0	25.0	0.0	75.0	0.0	25.0	27.8	0.0	72.2	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	24.2	
Total %	0.0	30.6	0.0	0.0	0.0	30.6	0.0	0.0	4.8	0.0	0.0	4.8	0.0	1.6	0.0	4.8	0.0	6.5	16.1	0.0	41.9	0.0	0.0	58.1	0.0	0.0	0.0	0.0	0.0	0.0	62	
Exiting Leg Total	27						0						10						25						0	62						
Buses	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0	1	4	0	4	0	0	8	0	0	0	0	0	0	15	
% Buses	0.0	31.6	0.0	0.0	0.0	31.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	25.0	40.0	0.0	15.4	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	24.2	
Exiting Leg Total	4						0						4						7						0	15						
Single-Unit Trucks	0	10	0	0	0	10	0	0	3	0	0	3	0	1	0	1	0	2	6	0	19	0	0	25	0	0	0	0	0	0	40	
% Single-Unit	0.0	52.6	0.0	0.0	0.0	52.6	0.0	0.0	100.0	0.0	0.0	100.0	0.0	100.0	0.0	33.3	0.0	50.0	60.0	0.0	73.1	0.0	0.0	69.4	0.0	0.0	0.0	0.0	0.0	0.0	64.5	
Exiting Leg Total	20						0						6						14						0	40						
Articulated Trucks	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	0	0	3	0	0	0	0	0	0	7	
% Articulated	0.0	15.8	0.0	0.0	0.0	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	25.0	0.0	0.0	11.5	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	11.3	
Exiting Leg Total	3						0						0						4						0	7						

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total	
	from North						from East						from Southeast						from South						from West							
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total		
4:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	6	0	0	6	0	0	0	0	0	0	11
4:15 PM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0	2	0	0	5	0	0	0	0	0	0	11
4:30 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	6	0	0	0	0	0	0	10
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	6	0	0	0	0	0	0	6
Total Volume	0	13	0	0	0	13	0	0	0	0	0	0	0	0	0	0	2	0	2	6	0	17	0	0	23	0	0	0	0	0	0	38
% Approach Total	0.0	100.0	0.0	0.0	0.0	31.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	25.0	26.1	0.0	73.9	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	24.2	
PHF	0.000	0.650	0.000	0.000	0.000	0.650	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.500	0.000	0.708	0.000	0.000	0.958	0.000	0.000	0.000	0.000	0.000	0.000	0.864	
Buses	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	6	0	0	0	0	0	0	10
Buses %	0.0	30.8	0.0	0.0	0.0	30.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	17.6	0.0	0.0	26.1	0.0	0.0	0.0	0.0	0.0	0.0	26.3	
Single-Unit Trucks	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	1	0	1	3	0	11	0	0	14	0	0	0	0	0	0	21	
Single-Unit %	0.0	46.2	0.0	0.0	0.0	46.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	50.0	0.0	64.7	0.0	0.0	60.9	0.0	0.0	0.0	0.0	0.0	0.0	55.3	
Articulated Trucks	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	0	0	3	0	0	0	0	0	0	7	
Articulated %	0.0	23.1	0.0	0.0	0.0	23.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	17.6	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	18.4	

PDI File #: **197004 A**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Cabot Street (Route 1A)						Front Street					Water Street					Cabot Street (Route 1A)					Goat Hill Lane					Total				
	from North						from East					from Southeast					from South					from West									
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right		Thru	Left	U-Turn	Total
Buses	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	6	0	0	0	0	0	0	10
Single-Unit Trucks	0	6	0	0	0	6	0	0	0	0	0	0	0	0	1	0	1	3	0	11	0	0	14	0	0	0	0	0	0	21	
Articulated Trucks	0	3	0	0	0	3	0	0	0	0	0	0	0	0	1	0	1	0	0	3	0	0	3	0	0	0	0	0	0	7	
Total Entering Leg	0	13	0	0	0	13	0	0	0	0	0	0	0	0	2	0	2	6	0	17	0	0	23	0	0	0	0	0	0	38	
Buses																											3	0	10		
Single-Unit Trucks																											11	0	21		
Articulated Trucks																											3	0	7		
Total Exiting Leg																											17	0	38		

PDI File #: **197004 A**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Buses

	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3	
4:15 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	4	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	
Total	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	6	0	0	0	0	0	0	10	
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	
Total	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	0	2	0	0	0	0	0	5		
Grand Total	0	6	0	0	0	6	0	0	0	0	0	0	0	1	0	1	0	4	0	4	0	0	8	0	0	0	0	0	0	15	
Approach %	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0	50.0	0.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total %	0.0	40.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	6.7	0.0	6.7	26.7	0.0	26.7	0.0	0.0	53.3	0.0	0.0	0.0	0.0	0.0		
Exiting Leg Total						4										4							7							15	

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3		
4:15 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	4		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1		
Total Volume	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	6	0	0	0	0	0	10		
% Approach Total	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.375	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.625		
Entering Leg	0	4	0	0	0	4	0	0	0	0	0		0	0	0	0	0	3	0	3	0	0	6	0	0	0	0	0	10		
Exiting Leg						3																	4						10		
Total						7										3							10						20		

PDI File #: **197004 A**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	7		
4:15 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	4			
4:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	5			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	5			
Total	0	6	0	0	0	6	0	0	0	0	0	0	0	1	0	1	3	0	11	0	0	14	0	0	0	0	0	21			
5:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	8			
5:15 PM	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3			
5:30 PM	0	1	0	0	0	1	0	0	2	0	0	2	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	5			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	3				
Total	0	4	0	0	0	4	0	0	3	0	0	3	0	1	0	0	1	3	0	8	0	0	11	0	0	0	0	19			
Grand Total	0	10	0	0	0	10	0	0	3	0	0	3	0	1	0	1	2	6	0	19	0	0	25	0	0	0	0	40			
Approach %	0.0	100.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	50.0	0.0	50.0	0.0	24.0	0.0	76.0	0.0	0.0		0.0	0.0	0.0	0.0				
Total %	0.0	25.0	0.0	0.0	0.0	25.0	0.0	0.0	7.5	0.0	0.0	7.5	0.0	2.5	0.0	2.5	0.0	5.0	15.0	0.0	47.5	0.0	0.0	62.5	0.0	0.0	0.0	0.0	0.0		
Exiting Leg Total						20						0					6						14					40			

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
4:15 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	4			
4:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	5			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	5			
5:00 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	8			
Total Volume	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	3	0	13	0	0	16	0	0	0	0	22			
% Approach Total	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	18.8	0.0	81.3	0.0	0.0		0.0	0.0	0.0	0.0				
PHF	0.000	0.750	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.542	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.688			
Entering Leg	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	3	0	13	0	0	16	0	0	0	0	22			
Exiting Leg						13						0					3						6					22			
Total						19						0					3						22					44			

PDI File #: **197004 A**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Cabot Street (Route 1A)						Front Street					Water Street					Cabot Street (Route 1A)					Goat Hill Lane					Total			
	from North						from East					from Southeast					from South					from West								
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right		Thru	Left	U-Turn	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	0	1	0	0	0	0	0	3
4:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	3	0	0	0	3	0	0	0	0	0	0	0	0	1	0	1	0	0	3	0	0	3	0	0	0	0	0	7	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	3	0	0	0	3	0	0	0	0	0	0	0	0	1	0	1	0	0	3	0	0	3	0	0	0	0	0	7	
Approach %	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total %	0.0	42.9	0.0	0.0	0.0	42.9	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	14.3	0.0	14.3		0.0	0.0	42.9	0.0	0.0	42.9	0.0	0.0	0.0	0.0	
Exiting Leg Total						3						0					0						4						7	

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Cabot Street (Route 1A)						Front Street					Water Street					Cabot Street (Route 1A)					Goat Hill Lane					Total		
	from North						from East					from Southeast					from South					from West							
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right		Thru	Left	U-Turn	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	3
4:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	3	0	0	0	3	0	0	0	0	0	0	0	0	1	0	1	0	0	3	0	0	3	0	0	0	0	7	
% Approach Total	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.375	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.583
Entering Leg	0	3	0	0	0	3	0	0	0	0	0	0	0	0	1	0	1	0	0	3	0	0	3	0	0	0	0	0	7
Exiting Leg						3						0					0						4						7
Total						6						0				1							7						14

PDI File #: **197004 A**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Cabot Street (Route 1A)								Front Street								Water Street								Cabot Street (Route 1A)								Goat Hill Lane								Total
	from North								from East								from Southeast								from South								from West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
Total	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4			
Grand Total	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	4	4	9	1	0	0	0	0	0	0	0	0	0	0	0	0	11				
Approach %	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	44.4	44.4	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total %	0.0	9.1	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	36.4	36.4	81.8	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Exiting Leg Total	0								0								9								2								0								11

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Cabot Street (Route 1A)								Front Street								Water Street								Cabot Street (Route 1A)								Goat Hill Lane								Total
	from North								from East								from Southeast								from South								from West								
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7		
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	33.3	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.500	0.500	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.583				
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7			
Exiting Leg	0								0								7								0								0								7
Total	0								0								13								1								0								14

PDI File #: **197004 A**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Cabot Street (Route 1A)								Front Street								Water Street								Cabot Street (Route 1A)								Goat Hill Lane								Total								
	from North								from East								from Southeast								from South								from West																
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total									
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	10							
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2							
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6	17								
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	4	4							
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	5							
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	4							
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1							
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	7	14							
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	8	7	15	0	0	0	0	0	0	0	0	0	0	0	0	0	5	8	13	31	31								
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	66.7	33.3		0	0	0	0	0	53.3	46.7		0	0	0	0	0	0	0	0	0	0	0	0	0	38.5	61.5											
Total %	0	0	0	0	0	0	0	0	0	0	0	0	6.45	3.23	9.68	0	0	0	0	0	25.8	22.6	48.4	0	0	0	0	0	0	0	0	0	0	0	0	0	16.1	25.8	41.9										
Exiting Leg Total	0								3								15								0								13								31								

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Cabot Street (Route 1A)								Front Street								Water Street								Cabot Street (Route 1A)								Goat Hill Lane								Total	
	from North								from East								from Southeast								from South								from West									
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	10	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	4	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	5
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	4	5	9	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	11	21	21	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	44.4	55.6		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.3	72.7					
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250		0.000	0.000	0.000	0.000	0.000	0.500	0.417	0.450		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	1.000	0.688	0.525		
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	4	5	9	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	11	21	21	
Exiting Leg	0								1								9								0								11								21	
Total	0								2								18								0								22								42	

PDI File #: 197004 AA
 Location: N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)
 Location: E: Front Street W: Goat Hill Lane SE: Water Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 1, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



Cars and Heavy Vehicles (Combined)

	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
11:00 AM	1	164	11	0	0	176	2	0	2	0	0	4	0	3	0	35	0	38	26	0	158	8	0	192	0	2	0	3	0	5	415
11:15 AM	1	150	8	0	0	159	3	1	0	0	0	4	0	10	3	26	0	39	48	0	202	10	0	260	1	3	0	4	0	8	470
11:30 AM	2	182	8	0	0	192	3	0	0	2	0	5	0	6	0	24	0	30	34	0	170	13	0	217	0	1	0	4	0	5	449
11:45 AM	1	153	6	0	0	160	1	1	5	1	0	8	0	3	0	29	0	32	40	0	199	8	0	247	1	3	0	11	0	15	462
Total	5	649	33	0	0	687	9	2	7	3	0	21	0	22	3	114	0	139	148	0	729	39	0	916	2	9	0	22	0	33	1796
12:00 PM	2	186	8	0	0	196	2	0	4	0	0	6	0	6	0	34	0	40	25	0	185	13	0	223	0	5	0	5	0	10	475
12:15 PM	2	207	12	0	1	222	2	0	5	0	0	7	0	6	0	38	0	44	27	0	169	4	0	200	0	9	0	2	0	11	484
12:30 PM	1	156	16	0	0	173	6	0	3	0	0	9	0	7	0	46	0	53	33	0	184	8	0	225	1	5	0	4	0	10	470
12:45 PM	3	181	5	0	0	189	2	0	0	0	0	2	0	6	4	44	0	54	34	0	180	9	0	223	0	5	0	7	0	12	480
Total	8	730	41	0	1	780	12	0	12	0	0	24	0	25	4	162	0	191	119	0	718	34	0	871	1	24	0	18	0	43	1909
Grand Total	13	1379	74	0	1	1467	21	2	19	3	0	45	0	47	7	276	0	330	267	0	1447	73	0	1787	3	33	0	40	0	76	3705
Approach %	0.9	94.0	5.0	0.0	0.1		46.7	4.4	42.2	6.7	0.0		0.0	14.2	2.1	83.6	0.0		14.9	0.0	81.0	4.1	0.0		3.9	43.4	0.0	52.6	0.0		
Total %	0.4	37.2	2.0	0.0	0.0	39.6	0.6	0.1	0.5	0.1	0.0	1.2	0.0	1.3	0.2	7.4	0.0	8.9	7.2	0.0	39.1	2.0	0.0	48.2	0.1	0.9	0.0	1.1	0.0	2.1	
Exiting Leg Total	1556						0						377						1677						95						3705
Cars	12	1350	72	0	1	1435	21	2	19	3	0	45	0	44	7	272	0	323	262	0	1427	71	0	1760	2	32	0	38	0	72	3635
% Cars	92.3	97.9	97.3	0.0	100.0	97.8	100.0	100.0	100.0	100.0	0.0	100.0	0.0	93.6	100.0	98.6	0.0	97.9	98.1	0.0	98.6	97.3	0.0	98.5	66.7	97.0	0.0	95.0	0.0	94.7	98.1
Exiting Leg Total	1531						0						369						1643						92						3635
Heavy Vehicles	1	29	2	0	0	32	0	0	0	0	0	0	0	3	0	4	0	7	5	0	20	2	0	27	1	1	0	2	0	4	70
% Heavy Vehicles	7.7	2.1	2.7	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	1.4	0.0	2.1	1.9	0.0	1.4	2.7	0.0	1.5	33.3	3.0	0.0	5.0	0.0	5.3	1.9
Exiting Leg Total	25						0						8						34						3						70

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
12:00 PM	2	186	8	0	0	196	2	0	4	0	0	6	0	6	0	34	0	40	25	0	185	13	0	223	0	5	0	5	0	10	475
12:15 PM	2	207	12	0	1	222	2	0	5	0	0	7	0	6	0	38	0	44	27	0	169	4	0	200	0	9	0	2	0	11	484
12:30 PM	1	156	16	0	0	173	6	0	3	0	0	9	0	7	0	46	0	53	33	0	184	8	0	225	1	5	0	4	0	10	470
12:45 PM	3	181	5	0	0	189	2	0	0	0	0	2	0	6	4	44	0	54	34	0	180	9	0	223	0	5	0	7	0	12	480
Total Volume	8	730	41	0	1	780	12	0	12	0	0	24	0	25	4	162	0	191	119	0	718	34	0	871	1	24	0	18	0	43	1909
% Approach Total	1.0	93.6	5.3	0.0	0.1		50.0	0.0	50.0	0.0	0.0		0.0	13.1	2.1	84.8	0.0		13.7	0.0	82.4	3.9	0.0		2.3	55.8	0.0	41.9	0.0		
PHF	0.667	0.882	0.641	0.000	0.250	0.878	0.500	0.000	0.600	0.000	0.000	0.667	0.000	0.893	0.250	0.880	0.000	0.884	0.875	0.000	0.970	0.654	0.000	0.968	0.250	0.667	0.000	0.643	0.000	0.896	0.986
Cars	7	713	40	0	1	761	12	0	12	0	0	24	0	23	4	161	0	188	117	0	707	33	0	857	0	23	0	17	0	40	1870
Cars %	87.5	97.7	97.6	0.0	100.0	97.6	100.0	0.0	100.0	0.0	0.0	100.0	0.0	92.0	100.0	99.4	0.0	98.4	98.3	0.0	98.5	97.1	0.0	98.4	0.0	95.8	0.0	94.4	0.0	93.0	98.0
Heavy Vehicles	1	17	1	0	0	19	0	0	0	0	0	0	0	2	0	1	0	3	2	0	11	1	0	14	1	1	0	1	0	3	39
Heavy Vehicles %	12.5	2.3	2.4	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.6	0.0	1.6	1.7	0.0	1.5	2.9	0.0	1.6	100.0	4.2	0.0	5.6	0.0	7.0	2.0
Cars Enter Leg	7	713	40	0	1	761	12	0	12	0	0	24	0	23	4	161	0	188	117	0	707	33	0	857	0	23	0	17	0	40	1870
Heavy Enter Leg	1	17	1	0	0	19	0	0	0	0	0	0	0	2	0	1	0	3	2	0	11	1	0	14	1	1	0	1	0	3	39
Total Entering Leg	8	730	41	0	1	780	12	0	12	0	0	24	0	25	4	162	0	191	119	0	718	34	0	871	1	24	0	18	0	43	1909
Cars Exiting Leg	760						0						180						886						44						1870
Heavy Exiting Leg	14						0						4						19						2						39
Total Exiting Leg	774						0						184						905						46						1909

PDI File #: **197004 AA**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Cars

	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
11:00 AM	1	160	11	0	0	172	2	0	2	0	0	4	0	3	0	33	0	36	25	0	156	8	0	189	0	2	0	3	0	5	406
11:15 AM	1	145	8	0	0	154	3	1	0	0	0	4	0	10	3	25	0	38	48	0	201	9	0	258	1	3	0	4	0	8	462
11:30 AM	2	181	8	0	0	191	3	0	0	2	0	5	0	6	0	24	0	30	34	0	169	13	0	216	0	1	0	4	0	5	447
11:45 AM	1	151	5	0	0	157	1	1	5	1	0	8	0	2	0	29	0	31	38	0	194	8	0	240	1	3	0	10	0	14	450
Total	5	637	32	0	0	674	9	2	7	3	0	21	0	21	3	111	0	135	145	0	720	38	0	903	2	9	0	21	0	32	1765
12:00 PM	2	182	7	0	0	191	2	0	4	0	0	6	0	5	0	34	0	39	25	0	181	13	0	219	0	5	0	5	0	10	465
12:15 PM	1	202	12	0	1	216	2	0	5	0	0	7	0	6	0	37	0	43	26	0	167	4	0	197	0	9	0	2	0	11	474
12:30 PM	1	150	16	0	0	167	6	0	3	0	0	9	0	6	0	46	0	52	33	0	179	7	0	219	0	5	0	4	0	9	456
12:45 PM	3	179	5	0	0	187	2	0	0	0	0	2	0	6	4	44	0	54	33	0	180	9	0	222	0	4	0	6	0	10	475
Total	7	713	40	0	1	761	12	0	12	0	0	24	0	23	4	161	0	188	117	0	707	33	0	857	0	23	0	17	0	40	1870
Grand Total	12	1350	72	0	1	1435	21	2	19	3	0	45	0	44	7	272	0	323	262	0	1427	71	0	1760	2	32	0	38	0	72	3635
Approach %	0.8	94.1	5.0	0.0	0.1		46.7	4.4	42.2	6.7	0.0		0.0	13.6	2.2	84.2	0.0		14.9	0.0	81.1	4.0	0.0		2.8	44.4	0.0	52.8	0.0		
Total %	0.3	37.1	2.0	0.0	0.0	39.5	0.6	0.1	0.5	0.1	0.0	1.2	0.0	1.2	0.2	7.5	0.0	8.9	7.2	0.0	39.3	2.0	0.0	48.4	0.1	0.9	0.0	1.0	0.0	2.0	
Exiting Leg Total						1531						0					369							1643						92	3635

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
12:00 PM	2	182	7	0	0	191	2	0	4	0	0	6	0	5	0	34	0	39	25	0	181	13	0	219	0	5	0	5	0	10	465
12:15 PM	1	202	12	0	1	216	2	0	5	0	0	7	0	6	0	37	0	43	26	0	167	4	0	197	0	9	0	2	0	11	474
12:30 PM	1	150	16	0	0	167	6	0	3	0	0	9	0	6	0	46	0	52	33	0	179	7	0	219	0	5	0	4	0	9	456
12:45 PM	3	179	5	0	0	187	2	0	0	0	0	2	0	6	4	44	0	54	33	0	180	9	0	222	0	4	0	6	0	10	475
Total Volume	7	713	40	0	1	761	12	0	12	0	0	24	0	23	4	161	0	188	117	0	707	33	0	857	0	23	0	17	0	40	1870
% Approach Total	0.9	93.7	5.3	0.0	0.1		50.0	0.0	50.0	0.0	0.0		0.0	12.2	2.1	85.6	0.0		13.7	0.0	82.5	3.9	0.0		0.0	57.5	0.0	42.5	0.0		
PHF	0.583	0.882	0.625	0.000	0.250	0.881	0.500	0.000	0.600	0.000	0.000	0.667	0.000	0.958	0.250	0.875	0.000	0.870	0.886	0.000	0.977	0.635	0.000	0.965	0.000	0.639	0.000	0.708	0.000	0.909	0.984
Entering Leg	7	713	40	0	1	761	12	0	12	0	0	24	0	23	4	161	0	188	117	0	707	33	0	857	0	23	0	17	0	40	1870
Exiting Leg						760						0					180							886						44	1870
Total						1521						24					368							1743						84	3740

PDI File #: 197004 AA

Location: N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)

Location: E: Front Street W: Goat Hill Lane SE: Water Street

City, State: Beverly, MA

Client: GPI/ D. Halpert

Site Code: 2019071

Count Date: Saturday, June 1, 2019

Start Time: 11:00 AM

End Time: 1:00 PM

Class:



PRECISION DATA INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

Table with columns for Cabot Street (Route 1A), Front Street, Water Street, Cabot Street (Route 1A), and Goat Hill Lane. Rows include time intervals (11:00 AM to 12:45 PM), Grand Total, Approach %, Total %, and Exiting Leg Total for various vehicle types (Buses, Single-Unit Trucks, Articulated Trucks).

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

Table showing peak hour analysis starting at 11:45 AM. Columns are similar to the main table, showing volume and percentage of approach for different vehicle types during the peak period.

PDI File #: **197004 AA**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Cabot Street (Route 1A)						Front Street					Water Street					Cabot Street (Route 1A)					Goat Hill Lane					Total										
	from North						from East					from Southeast					from South					from West															
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right		Thru	Left	U-Turn	Total						
Buses	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Single-Unit Trucks	1	11	2	0	0	14	0	0	0	0	0	0	0	2	0	1	0	3	3	0	15	1	0	19	1	0	0	1	0	2	0	0	0	0	0	2	38
Articulated Trucks	0	3	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
Total Entering Leg	1	17	2	0	0	20	0	0	0	0	0	0	0	3	0	1	0	4	3	0	16	1	0	20	1	0	0	1	0	2	46						
Buses	0						0					0					3					0					3										
Single-Unit Trucks	18						0					5					13					2					38										
Articulated Trucks	2						0					0					3					0					5										
Total Exiting Leg	20						0					5					19					2					46										

PDI File #: 197004 AA
 Location: N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)
 Location: E: Front Street W: Goat Hill Lane SE: Water Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 1, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



Buses

	Cabot Street (Route 1A)						Front Street					Water Street					Cabot Street (Route 1A)					Goat Hill Lane					Total					
	from North						from East					from Southeast					from South					from West										
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right		Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Total	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
12:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2	
Total	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	3	
Grand Total	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	6	
Approach %	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total %	0.0	83.3	0.0	0.0	0.0	83.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	0						0					1					5					0					6					

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Cabot Street (Route 1A)						Front Street					Water Street					Cabot Street (Route 1A)					Goat Hill Lane					Total				
	from North						from East					from Southeast					from South					from West									
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right		Thru	Left	U-Turn	Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
% Approach Total	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.375	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Exiting Leg	0						0					0					3					0					3				
Total	3						0					0					3					0					6				

PDI File #: **197004 AA**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Single-Unit Trucks

	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
11:00 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	2	0	2	1	0	2	0	0	3	0	0	0	0	0	0	9
11:15 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	0	2	0	0	0	0	0	0	7	
11:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	
11:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	1	2	0	5	0	0	7	0	0	0	1	0	1	10	
Total	0	9	1	0	0	10	0	0	0	0	0	0	0	1	0	3	4	3	0	9	1	0	13	0	0	0	1	0	1	28	
12:00 PM	0	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	8	
12:15 PM	1	5	0	0	0	6	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	2	0	0	0	0	0	0	9	
12:30 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	1	0	0	1	0	0	5	1	0	6	1	0	0	0	0	1	11	
12:45 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	3	
Total	1	12	1	0	0	14	0	0	0	0	0	0	0	1	0	1	2	1	0	10	1	0	12	1	1	0	1	0	3	31	
Grand Total	1	21	2	0	0	24	0	0	0	0	0	0	0	2	0	4	6	4	0	19	2	0	25	1	1	0	2	0	4	59	
Approach %	4.2	87.5	8.3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	33.3	0.0	66.7	0.0	16.0	0.0	76.0	8.0	0.0		25.0	25.0	0.0	50.0	0.0			
Total %	1.7	35.6	3.4	0.0	0.0	40.7	0.0	0.0	0.0	0.0	0.0		0.0	3.4	0.0	6.8	10.2	6.8	0.0	32.2	3.4	0.0	42.4	1.7	1.7	0.0	3.4	0.0	6.8		
Exiting Leg Total						23						0				7							26						3	59	

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Cabot Street (Route 1A)						Front Street						Water Street						Cabot Street (Route 1A)						Goat Hill Lane						Total
	from North						from East						from Southeast						from South						from West						
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	
11:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	1	2	0	5	0	0	7	0	0	0	1	0	1	10	
12:00 PM	0	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	8	
12:15 PM	1	5	0	0	0	6	0	0	0	0	0	0	0	1	0	1	1	1	0	1	0	0	2	0	0	0	0	0	0	9	
12:30 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	1	0	0	1	0	0	5	1	0	6	1	0	0	0	0	1	11	
Total Volume	1	11	2	0	0	14	0	0	0	0	0	0	0	2	0	1	3	3	0	15	1	0	19	1	0	0	1	0	2	38	
% Approach Total	7.1	78.6	14.3	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	66.7	0.0	33.3	0.0	15.8	0.0	78.9	5.3	0.0		50.0	0.0	0.0	50.0	0.0			
PHF	0.250	0.550	0.500	0.000	0.000	0.583	0.000	0.000	0.000	0.000	0.000		0.000	0.500	0.000	0.250	0.000	0.375	0.000	0.750	0.250	0.000	0.679	0.250	0.000	0.000	0.250	0.000	0.500	0.864	
Entering Leg	1	11	2	0	0	14	0	0	0	0	0	0	0	2	0	1	3	3	0	15	1	0	19	1	0	0	1	0	2	38	
Exiting Leg						18											5						13						2	38	
Total						32						0				8							32						4	76	

PDI File #: 197004 AA

Location: N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)

Location: E: Front Street W: Goat Hill Lane SE: Water Street

City, State: Beverly, MA

Client: GPI/ D. Halpert

Site Code: 2019071

Count Date: Saturday, June 1, 2019

Start Time: 11:00 AM

End Time: 1:00 PM

Class:



46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Cabot Street (Route 1A)							Front Street					Water Street					Cabot Street (Route 1A)					Goat Hill Lane					Total				
	from North							from East					from Southeast					from South					from West									
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru		Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1		
12:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	3	0	0	0	3	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	5		
Grand Total	0	3	0	0	0	3	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	5		
Approach %	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total %	0.0	60.0	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0		0.0	20.0	0.0	0.0	20.0		0.0	0.0	20.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Exiting Leg Total	2						0					0					3					0					5					

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Cabot Street (Route 1A)							Front Street					Water Street					Cabot Street (Route 1A)					Goat Hill Lane					Total		
	from North							from East					from Southeast					from South					from West							
	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru		Left	U-Turn	Total
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
12:30 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	3	0	0	0	3	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	5
% Approach Total	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.375	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000		0.000	0.250	0.000	0.000	0.250		0.000	0.000	0.250	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.625
Entering Leg	0	3	0	0	0	3	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	5	
Exiting Leg	2						0					0					3					0					5			
Total	5						0					1					4					0					10			

PDI File #: **197004 AA**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Cabot Street (Route 1A)								Front Street								Water Street								Cabot Street (Route 1A)								Goat Hill Lane								Total							
	from North								from East								from Southeast								from South								from West															
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total								
11:00 AM	1	2	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	14
11:15 AM	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
11:30 AM	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
11:45 AM	0	8	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	10	
Total	1	15	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	2	0	6	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	32		
12:00 PM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	4	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7		
12:15 PM	0	1	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4		
12:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	3	0	2	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	8		
12:45 PM	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5			
Total	0	7	0	0	0	1	0	8	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	6	8	0	2	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	24			
Grand Total	1	22	0	0	0	1	1	25	0	0	0	0	0	0	0	0	0	0	0	9	0	2	2	13	10	0	8	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	56			
Approach %	4.0	88.0	0.0	0.0	0.0	4.0	4.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	69.2	0.0	15.4	15.4		55.6	0.0	44.4	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total %	1.8	39.3	0.0	0.0	0.0	1.8	1.8	44.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1	0.0	3.6	3.6	23.2	17.9	0.0	14.3	0.0	0.0	0.0	0.0	32.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Exiting Leg Total	10								0								14								31								1								56							

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Cabot Street (Route 1A)								Front Street								Water Street								Cabot Street (Route 1A)								Goat Hill Lane								Total				
	from North								from East								from Southeast								from South								from West												
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total					
11:00 AM	1	2	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	14
11:15 AM	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:30 AM	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	6
11:45 AM	0	8	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	10	
Total Volume	1	15	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	2	0	6	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	32	
% Approach Total	5.9	88.2	0.0	0.0	0.0	0.0	5.9		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0	0.0	0.0		25.0	0.0	75.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.250	0.469	0.000	0.000	0.000	0.000	0.250	0.531	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.250	0.000	0.000	0.250		0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.667	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.571		
Entering Leg	1	15	0	0	0	0	1	17	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	2	0	6	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	32	
Exiting Leg	7								0								2								31								1								32				
Total	24								0								9								30								1								64				

PDI File #: **197004 AA**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **E: Front Street W: Goat Hill Lane SE: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Pedestrians

	Cabot Street (Route 1A)								Front Street								Water Street								Cabot Street (Route 1A)								Goat Hill Lane								Total									
	from North								from East								from Southeast								from South								from West																	
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total										
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6		
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2	2	4	0	0	0	0	0	2	2	4	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	13		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4		
12:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	5		
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	2		
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	5	2	7	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1	3	0	0	0	0	0	2	1	3	13		
Grand Total	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1	3	0	0	0	0	0	7	4	11	0	0	0	0	0	3	2	5	0	0	0	0	0	5	1	6	0	0	0	0	0	5	1	6	26	
Approach %	0	0	0	0	0	100	0	0	0	0	0	0	66.7	33.3	0	0	0	0	0	63.6	36.4	0	0	0	0	0	60	40	0	0	0	0	0	83.3	16.7	0	0	0	0	0	83.3	16.7	0	0	0	0	0	83.3	16.7	0
Total %	0	0	0	0	0	3.85	0	3.85	0	0	0	0	0	7.69	3.85	11.5	0	0	0	0	0	26.9	15.4	42.3	0	0	0	0	0	11.5	7.69	19.2	0	0	0	0	0	19.2	3.85	23.1	0	0	0	0	0	19.2	3.85	23.1	0	
Exiting Leg Total	1								3								11								5								6								26									

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Cabot Street (Route 1A)								Front Street								Water Street								Cabot Street (Route 1A)								Goat Hill Lane								Total								
	from North								from East								from Southeast								from South								from West																
	Right	Thru	Bear Left	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-SB	CW-NB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-SWB	CW-NEB	Total	Hard Right	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total									
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4		
12:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	5	
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6	3	9	0	0	0	0	0	2	2	4	0	0	0	0	0	3	1	4	0	0	0	0	0	3	1	4	18	
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	33.3	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	75.0	25.0	0.0	0.0	0.0	0.0	0.0	75.0	25.0	0.0	0.0	0.0	0.0	0.0	75.0	25.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.750	0.750	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.333	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.333	0.750										
Entering Leg	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6	3	9	0	0	0	0	0	2	2	4	0	0	0	0	0	3	1	4	0	0	0	0	0	3	1	4	18	
Exiting Leg	1								0								9								4								4								18								
Total	2								0								18								8								8								36								

PDI File #: **197004 B**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	120	0	0	121	1	0	85	0	86	115	150	0	0	265	1	0	0	0	1	473
4:15 PM	0	127	0	0	127	4	0	87	0	91	62	155	0	0	217	0	0	1	0	1	436
4:30 PM	3	136	0	0	139	1	0	0	0	1	0	164	0	0	164	0	0	0	0	0	304
4:45 PM	1	128	0	0	129	1	0	0	0	1	0	157	0	0	157	0	0	0	0	0	287
Total	5	511	0	0	516	7	0	172	0	179	177	626	0	0	803	1	0	1	0	2	1500
5:00 PM	3	138	0	0	141	1	0	1	0	2	0	171	1	0	172	0	0	1	0	1	316
5:15 PM	0	123	0	0	123	0	0	0	0	0	1	137	1	0	139	0	0	0	0	0	262
5:30 PM	1	154	0	0	155	0	0	0	0	0	0	168	0	0	168	1	0	0	0	1	324
5:45 PM	0	124	1	0	125	0	0	1	0	1	1	142	0	0	143	0	0	0	0	0	269
Total	4	539	1	0	544	1	0	2	0	3	2	618	2	0	622	1	0	1	0	2	1171
Grand Total	9	1050	1	0	1060	8	0	174	0	182	179	1244	2	0	1425	2	0	2	0	4	2671
Approach %	0.8	99.1	0.1	0.0		4.4	0.0	95.6	0.0		12.6	87.3	0.1	0.0		50.0	0.0	50.0	0.0		
Total %	0.3	39.3	0.0	0.0	39.7	0.3	0.0	6.5	0.0	6.8	6.7	46.6	0.1	0.0	53.4	0.1	0.0	0.1	0.0	0.1	
Exiting Leg Total	1254					180					1226					11					2671
Cars	9	1035	0	0	1044	8	0	167	0	175	175	1221	2	0	1398	2	0	2	0	4	2621
% Cars	100.0	98.6	0.0	0.0	98.5	100.0	0.0	96.0	0.0	96.2	97.8	98.2	100.0	0.0	98.1	100.0	0.0	100.0	0.0	100.0	98.1
Exiting Leg Total	1231					175					1204					11					2621
Heavy Vehicles	0	15	1	0	16	0	0	7	0	7	4	23	0	0	27	0	0	0	0	0	50
% Heavy Vehicles	0.0	1.4	100.0	0.0	1.5	0.0	0.0	4.0	0.0	3.8	2.2	1.8	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	1.9
Exiting Leg Total	23					5					22					0					50

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	120	0	0	121	1	0	85	0	86	115	150	0	0	265	1	0	0	0	1	473
4:15 PM	0	127	0	0	127	4	0	87	0	91	62	155	0	0	217	0	0	1	0	1	436
4:30 PM	3	136	0	0	139	1	0	0	0	1	0	164	0	0	164	0	0	0	0	0	304
4:45 PM	1	128	0	0	129	1	0	0	0	1	0	157	0	0	157	0	0	0	0	0	287
Total Volume	5	511	0	0	516	7	0	172	0	179	177	626	0	0	803	1	0	1	0	2	1500
% Approach Total	1.0	99.0	0.0	0.0		3.9	0.0	96.1	0.0		22.0	78.0	0.0	0.0		50.0	0.0	50.0	0.0		
PHF	0.417	0.939	0.000	0.000	0.928	0.438	0.000	0.494	0.000	0.492	0.385	0.954	0.000	0.000	0.758	0.250	0.000	0.250	0.000	0.500	0.793
Cars	5	502	0	0	507	7	0	165	0	172	173	613	0	0	786	1	0	1	0	2	1467
Cars %	100.0	98.2	0.0	0.0	98.3	100.0	0.0	95.9	0.0	96.1	97.7	97.9	0.0	0.0	97.9	100.0	0.0	100.0	0.0	100.0	97.8
Heavy Vehicles	0	9	0	0	9	0	0	7	0	7	4	13	0	0	17	0	0	0	0	0	33
Heavy Vehicles %	0.0	1.8	0.0	0.0	1.7	0.0	0.0	4.1	0.0	3.9	2.3	2.1	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	2.2
Cars Enter Leg	5	502	0	0	507	7	0	165	0	172	173	613	0	0	786	1	0	1	0	2	1467
Heavy Enter Leg	0	9	0	0	9	0	0	7	0	7	4	13	0	0	17	0	0	0	0	0	33
Total Entering Leg	5	511	0	0	516	7	0	172	0	179	177	626	0	0	803	1	0	1	0	2	1500
Cars Exiting Leg	621					173					668					5					1467
Heavy Exiting Leg	13					4					16					0					33
Total Exiting Leg	634					177					684					5					1500

PDI File #: **197004 B**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Cars

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	117	0	0	118	1	0	82	0	83	111	147	0	0	258	1	0	0	0	1	460
4:15 PM	0	126	0	0	126	4	0	83	0	87	62	154	0	0	216	0	0	1	0	1	430
4:30 PM	3	131	0	0	134	1	0	0	0	1	0	159	0	0	159	0	0	0	0	0	294
4:45 PM	1	128	0	0	129	1	0	0	0	1	0	153	0	0	153	0	0	0	0	0	283
Total	5	502	0	0	507	7	0	165	0	172	173	613	0	0	786	1	0	1	0	2	1467
5:00 PM	3	135	0	0	138	1	0	1	0	2	0	165	1	0	166	0	0	1	0	1	307
5:15 PM	0	122	0	0	122	0	0	0	0	0	1	136	1	0	138	0	0	0	0	0	260
5:30 PM	1	153	0	0	154	0	0	0	0	0	0	167	0	0	167	1	0	0	0	1	322
5:45 PM	0	123	0	0	123	0	0	1	0	1	1	140	0	0	141	0	0	0	0	0	265
Total	4	533	0	0	537	1	0	2	0	3	2	608	2	0	612	1	0	1	0	2	1154
Grand Total	9	1035	0	0	1044	8	0	167	0	175	175	1221	2	0	1398	2	0	2	0	4	2621
Approach %	0.9	99.1	0.0	0.0		4.6	0.0	95.4	0.0		12.5	87.3	0.1	0.0		50.0	0.0	50.0	0.0		
Total %	0.3	39.5	0.0	0.0	39.8	0.3	0.0	6.4	0.0	6.7	6.7	46.6	0.1	0.0	53.3	0.1	0.0	0.1	0.0	0.2	
Exiting Leg Total					1231					175					1204					11	2621

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	1	117	0	0	118	1	0	82	0	83	111	147	0	0	258	1	0	0	0	1	460
4:15 PM	0	126	0	0	126	4	0	83	0	87	62	154	0	0	216	0	0	1	0	1	430
4:30 PM	3	131	0	0	134	1	0	0	0	1	0	159	0	0	159	0	0	0	0	0	294
4:45 PM	1	128	0	0	129	1	0	0	0	1	0	153	0	0	153	0	0	0	0	0	283
Total Volume	5	502	0	0	507	7	0	165	0	172	173	613	0	0	786	1	0	1	0	2	1467
% Approach Total	1.0	99.0	0.0	0.0		4.1	0.0	95.9	0.0		22.0	78.0	0.0	0.0		50.0	0.0	50.0	0.0		
PHF	0.417	0.958	0.000	0.000	0.946	0.438	0.000	0.497	0.000	0.494	0.390	0.964	0.000	0.000	0.762	0.250	0.000	0.250	0.000	0.500	0.797
Entering Leg	5	502	0	0	507	7	0	165	0	172	173	613	0	0	786	1	0	1	0	2	1467
Exiting Leg					621					173					668					5	1467
Total					1128					345					1454					7	2934

PDI File #: **197004 B**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	3	0	0	3	0	0	3	0	3	4	3	0	0	7	0	0	0	0	0	13
4:15 PM	0	1	0	0	1	0	0	4	0	4	0	1	0	0	1	0	0	0	0	0	6
4:30 PM	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	10
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
Total	0	9	0	0	9	0	0	7	0	7	4	13	0	0	17	0	0	0	0	0	33
5:00 PM	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	9
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:45 PM	0	1	1	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
Total	0	6	1	0	7	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	17
Grand Total	0	15	1	0	16	0	0	7	0	7	4	23	0	0	27	0	0	0	0	0	50
Approach %	0.0	93.8	6.3	0.0		0.0	0.0	100.0	0.0		14.8	85.2	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	30.0	2.0	0.0	32.0	0.0	0.0	14.0	0.0	14.0	8.0	46.0	0.0	0.0	54.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	23					5					22					0					50
Buses	0	3	0	0	3	0	0	3	0	3	2	3	0	0	5	0	0	0	0	0	11
% Buses	0.0	20.0	0.0	0.0	18.8	0.0	0.0	42.9	0.0	42.9	50.0	13.0	0.0	0.0	18.5	0.0	0.0	0.0	0.0	0.0	22.0
Exiting Leg Total	3					2					6					0					11
Single-Unit Trucks	0	10	1	0	11	0	0	3	0	3	2	17	0	0	19	0	0	0	0	0	33
% Single-Unit	0.0	66.7	100.0	0.0	68.8	0.0	0.0	42.9	0.0	42.9	50.0	73.9	0.0	0.0	70.4	0.0	0.0	0.0	0.0	0.0	66.0
Exiting Leg Total	17					3					13					0					33
Articulated Trucks	0	2	0	0	2	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	6
% Articulated	0.0	13.3	0.0	0.0	12.5	0.0	0.0	14.3	0.0	14.3	0.0	13.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	12.0
Exiting Leg Total	3					0					3					0					6

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	3	0	0	3	0	0	3	0	3	4	3	0	0	7	0	0	0	0	0	13
4:15 PM	0	1	0	0	1	0	0	4	0	4	0	1	0	0	1	0	0	0	0	0	6
4:30 PM	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	10
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
Total Volume	0	9	0	0	9	0	0	7	0	7	4	13	0	0	17	0	0	0	0	0	33
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		23.5	76.5	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.450	0.000	0.000	0.450	0.000	0.000	0.438	0.000	0.438	0.250	0.650	0.000	0.000	0.607	0.000	0.000	0.000	0.000	0.000	0.635
Buses	0	1	0	0	1	0	0	3	0	3	2	2	0	0	4	0	0	0	0	0	8
Buses %	0.0	11.1	0.0	0.0	11.1	0.0	0.0	42.9	0.0	42.9	50.0	15.4	0.0	0.0	23.5	0.0	0.0	0.0	0.0	0.0	24.2
Single-Unit Trucks	0	6	0	0	6	0	0	3	0	3	2	8	0	0	10	0	0	0	0	0	19
Single-Unit %	0.0	66.7	0.0	0.0	66.7	0.0	0.0	42.9	0.0	42.9	50.0	61.5	0.0	0.0	58.8	0.0	0.0	0.0	0.0	0.0	57.6
Articulated Trucks	0	2	0	0	2	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	6
Articulated %	0.0	22.2	0.0	0.0	22.2	0.0	0.0	14.3	0.0	14.3	0.0	23.1	0.0	0.0	17.6	0.0	0.0	0.0	0.0	0.0	18.2
Buses	0	1	0	0	1	0	0	3	0	3	2	2	0	0	4	0	0	0	0	0	8
Single-Unit Trucks	0	6	0	0	6	0	0	3	0	3	2	8	0	0	10	0	0	0	0	0	19
Articulated Trucks	0	2	0	0	2	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	6
Total Entering Leg	0	9	0	0	9	0	0	7	0	7	4	13	0	0	17	0	0	0	0	0	33
Buses	2					2					4					0					8
Single-Unit Trucks	8					2					9					0					19
Articulated Trucks	3					0					3					0					6
Total Exiting Leg	13					4					16					0					33

PDI File #: **197004 B**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Buses

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	2	0	2	2	0	0	0	2	0	0	0	0	0	4
4:15 PM	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	3	0	3	2	2	0	0	4	0	0	0	0	0	8
5:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Grand Total	0	3	0	0	3	0	0	3	0	3	2	3	0	0	5	0	0	0	0	0	11
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		40.0	60.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	27.3	0.0	0.0	27.3	0.0	0.0	27.3	0.0	27.3	18.2	27.3	0.0	0.0	45.5	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	3					2					6					0					11

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	2	0	2	2	0	0	0	2	0	0	0	0	0	4
4:15 PM	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	0	1	0	0	3	0	3	2	2	0	0	4	0	0	0	0	0	8
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		50.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.375	0.000	0.375	0.250	0.250	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	1	0	0	1	0	0	3	0	3	2	2	0	0	4	0	0	0	0	0	8
Exiting Leg	2					2					4					0					8
Total	3					5					8					0					16

PDI File #: **197004 B**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Single-Unit Trucks

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	3	0	0	3	0	0	1	0	1	2	2	0	0	4	0	0	0	0	0	8
4:15 PM	0	0	0	0	0	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	3
4:30 PM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
Total	0	6	0	0	6	0	0	3	0	3	2	8	0	0	10	0	0	0	0	0	19
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	8
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
5:45 PM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	0	4	1	0	5	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	14
Grand Total	0	10	1	0	11	0	0	3	0	3	2	17	0	0	19	0	0	0	0	0	33
Approach %	0.0	90.9	9.1	0.0		0.0	0.0	100.0	0.0		10.5	89.5	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	30.3	3.0	0.0	33.3	0.0	0.0	9.1	0.0	9.1	6.1	51.5	0.0	0.0	57.6	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	17					3					13					0					33

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	3	0	0	3	0	0	1	0	1	2	2	0	0	4	0	0	0	0	0	8
4:15 PM	0	0	0	0	0	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	3
4:30 PM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
Total Volume	0	6	0	0	6	0	0	3	0	3	2	8	0	0	10	0	0	0	0	0	19
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		20.0	80.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.375	0.000	0.375	0.250	0.500	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.594
Entering Leg	0	6	0	0	6	0	0	3	0	3	2	8	0	0	10	0	0	0	0	0	19
Exiting Leg	8					2					9					0					19
Total	14					5					19					0					38

PDI File #: **197004 B**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Articulated Trucks

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	6
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	2	0	0	2	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	6
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	33.3	0.0	0.0	33.3	0.0	0.0	16.7	0.0	16.7	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	3					0					3					0					6

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	0	2	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	6
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.375	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	2	0	0	2	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	6
Exiting Leg	3					0					3					0					6
Total	5					1					6					0					12

PDI File #: **197004 B**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Bicycles (on Roadway and Crosswalks)

	Rantoule Street							Cabot Street (Route 1A)							Cabot Street (Route 1A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	1	0	0	0	0	0	1	0	0	0	0	3		
Total	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	2	0	0	0	0	0	2	0	0	0	0	4		
Grand Total	0	0	0	0	1	1	2	1	0	0	0	0	1	2	0	2	0	0	0	0	0	2	0	0	0	0	6		
Approach %	0.0	0.0	0.0	0.0	50.0	50.0		50.0	0.0	0.0	0.0	0.0	50.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Total %	0.0	0.0	0.0	0.0	16.7	16.7	33.3	16.7	0.0	0.0	0.0	0.0	16.7	33.3	0.0	33.3	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0		
Exiting Leg Total	5							1							0							0							6

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoule Street							Cabot Street (Route 1A)							Cabot Street (Route 1A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	1	0	0	0	0	0	1	0	0	0	0	0	3	
Total Volume	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	2	0	0	0	0	0	2	0	0	0	0	0	4	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		50.0	0.0	0.0	0.0	0.0	50.0		0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.250		0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.333		
Entering Leg	0							1							0							0							4
Exiting Leg	3							1							0							0							4
Total	3							3							2							0							8

PDI File #: 197004 B
 Location: N: Rantoule Street S: Cabot Street (Route 1A)
 Location: E: Cabot Street (Route 1A) W: Driveway
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Thursday, May 30, 2019
 Start Time: 4:00 PM
 End Time: 6:00 PM
 Class:



Pedestrians

	Rantoule Street							Cabot Street (Route 1A)							Cabot Street (Route 1A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	3	4	7	8		
4:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	1	3		
Total	0	0	0	0	0	1	1	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	3	5	8	13			
5:00 PM	0	0	0	0	0	2	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	4	6	9			
5:15 PM	0	0	0	0	1	0	1	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	2	2	7			
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	3	0	3	5			
5:45 PM	0	0	0	0	0	3	3	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	2	2	6			
Total	0	0	0	0	1	5	6	0	0	0	0	5	3	8	0	0	0	0	0	0	0	0	5	8	13	27			
Grand Total	0	0	0	0	1	6	7	0	0	0	0	7	5	12	0	0	0	0	0	0	0	0	8	13	21	40			
Approach %	0	0	0	0	14.3	85.7		0	0	0	0	58.3	41.7		0	0	0	0	0	0	0	0	38.1	61.9					
Total %	0	0	0	0	2.5	15	17.5	0	0	0	0	17.5	12.5	30	0	0	0	0	0	0	0	0	20	32.5	52.5				
Exiting Leg Total	7							12							0							21							40

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoule Street							Cabot Street (Route 1A)							Cabot Street (Route 1A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	3	4	7	8			
4:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	1	3			
5:00 PM	0	0	0	0	0	2	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	4	6	9			
5:15 PM	0	0	0	0	1	0	1	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	2	2	7			
Total Volume	0	0	0	0	1	3	4	0	0	0	0	2	5	7	0	0	0	0	0	0	0	0	5	11	16	27			
% Approach Total	0.0	0.0	0.0	0.0	25.0	75.0		0.0	0.0	0.0	0.0	28.6	71.4		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.3	68.8					
PHF	0.000	0.000	0.000	0.000	0.250	0.375	0.500	0.000	0.000	0.000	0.000	0.250	0.625	0.438	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.417	0.688	0.571	0.750			
Entering Leg	0	0	0	0	1	3	4	0	0	0	0	2	5	7	0	0	0	0	0	0	0	0	5	11	16	27			
Exiting Leg	4							7							0							16							27
Total	8							14							0							32							54

PDI File #: **197004 BB**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Cars and Heavy Vehicles (Combined)

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	105	0	0	105	1	0	77	0	78	77	93	0	0	170	0	0	0	0	0	353
11:15 AM	0	100	0	0	100	0	0	60	0	60	93	124	0	0	217	0	0	0	0	0	377
11:30 AM	0	123	0	0	123	1	0	68	0	69	81	100	0	0	181	0	0	0	0	0	373
11:45 AM	0	97	0	0	97	0	1	61	0	62	93	118	1	0	212	1	0	1	0	2	373
Total	0	425	0	0	425	2	1	266	0	269	344	435	1	0	780	1	0	1	0	2	1476
12:00 PM	0	121	0	0	121	1	0	73	0	74	94	108	0	0	202	0	0	0	0	0	397
12:15 PM	0	116	0	0	116	1	0	109	0	110	84	96	1	0	181	0	0	0	0	0	407
12:30 PM	1	117	0	0	118	1	0	59	0	60	82	120	0	0	202	1	0	1	0	2	382
12:45 PM	1	115	0	0	116	3	1	75	0	79	94	98	1	0	193	1	0	0	0	1	389
Total	2	469	0	0	471	6	1	316	0	323	354	422	2	0	778	2	0	1	0	3	1575
Grand Total	2	894	0	0	896	8	2	582	0	592	698	857	3	0	1558	3	0	2	0	5	3051
Approach %	0.2	99.8	0.0	0.0		1.4	0.3	98.3	0.0		44.8	55.0	0.2	0.0		60.0	0.0	40.0	0.0		
Total %	0.1	29.3	0.0	0.0	29.4	0.3	0.1	19.1	0.0	19.4	22.9	28.1	0.1	0.0	51.1	0.1	0.0	0.1	0.0	0.2	
Exiting Leg Total	867					698					1479					7					3051
Cars	2	873	0	0	875	8	2	572	0	582	691	838	3	0	1532	3	0	2	0	5	2994
% Cars	100.0	97.7	0.0	0.0	97.7	100.0	100.0	98.3	0.0	98.3	99.0	97.8	100.0	0.0	98.3	100.0	0.0	100.0	0.0	100.0	98.1
Exiting Leg Total	848					691					1448					7					2994
Heavy Vehicles	0	21	0	0	21	0	0	10	0	10	7	19	0	0	26	0	0	0	0	0	57
% Heavy Vehicles	0.0	2.3	0.0	0.0	2.3	0.0	0.0	1.7	0.0	1.7	1.0	2.2	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	1.9
Exiting Leg Total	19					7					31					0					57

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:00 PM	0	121	0	0	121	1	0	73	0	74	94	108	0	0	202	0	0	0	0	0	397
12:15 PM	0	116	0	0	116	1	0	109	0	110	84	96	1	0	181	0	0	0	0	0	407
12:30 PM	1	117	0	0	118	1	0	59	0	60	82	120	0	0	202	1	0	1	0	2	382
12:45 PM	1	115	0	0	116	3	1	75	0	79	94	98	1	0	193	1	0	0	0	1	389
Total Volume	2	469	0	0	471	6	1	316	0	323	354	422	2	0	778	2	0	1	0	3	1575
% Approach Total	0.4	99.6	0.0	0.0		1.9	0.3	97.8	0.0		45.5	54.2	0.3	0.0		66.7	0.0	33.3	0.0		
PHF	0.500	0.969	0.000	0.000	0.973	0.500	0.250	0.725	0.000	0.734	0.941	0.879	0.500	0.000	0.963	0.500	0.000	0.250	0.000	0.375	0.967
Cars	2	456	0	0	458	6	1	310	0	317	351	410	2	0	763	2	0	1	0	3	1541
Cars %	100.0	97.2	0.0	0.0	97.2	100.0	100.0	98.1	0.0	98.1	99.2	97.2	100.0	0.0	98.1	100.0	0.0	100.0	0.0	100.0	97.8
Heavy Vehicles	0	13	0	0	13	0	0	6	0	6	3	12	0	0	15	0	0	0	0	0	34
Heavy Vehicles %	0.0	2.8	0.0	0.0	2.8	0.0	0.0	1.9	0.0	1.9	0.8	2.8	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	2.2
Cars Enter Leg	2	456	0	0	458	6	1	310	0	317	351	410	2	0	763	2	0	1	0	3	1541
Heavy Enter Leg	0	13	0	0	13	0	0	6	0	6	3	12	0	0	15	0	0	0	0	0	34
Total Entering Leg	2	469	0	0	471	6	1	316	0	323	354	422	2	0	778	2	0	1	0	3	1575
Cars Exiting Leg	417					351					768					5					1541
Heavy Exiting Leg	12					3					19					0					34
Total Exiting Leg	429					354					787					5					1575

PDI File #: **197004 BB**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Cars

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	102	0	0	102	1	0	77	0	78	76	91	0	0	167	0	0	0	0	0	347
11:15 AM	0	96	0	0	96	0	0	59	0	59	93	123	0	0	216	0	0	0	0	0	371
11:30 AM	0	123	0	0	123	1	0	66	0	67	81	99	0	0	180	0	0	0	0	0	370
11:45 AM	0	96	0	0	96	0	1	60	0	61	90	115	1	0	206	1	0	1	0	2	365
Total	0	417	0	0	417	2	1	262	0	265	340	428	1	0	769	1	0	1	0	2	1453
12:00 PM	0	117	0	0	117	1	0	72	0	73	93	103	0	0	196	0	0	0	0	0	386
12:15 PM	0	113	0	0	113	1	0	106	0	107	83	95	1	0	179	0	0	0	0	0	399
12:30 PM	1	113	0	0	114	1	0	57	0	58	81	115	0	0	196	1	0	1	0	2	370
12:45 PM	1	113	0	0	114	3	1	75	0	79	94	97	1	0	192	1	0	0	0	1	386
Total	2	456	0	0	458	6	1	310	0	317	351	410	2	0	763	2	0	1	0	3	1541
Grand Total	2	873	0	0	875	8	2	572	0	582	691	838	3	0	1532	3	0	2	0	5	2994
Approach %	0.2	99.8	0.0	0.0		1.4	0.3	98.3	0.0		45.1	54.7	0.2	0.0		60.0	0.0	40.0	0.0		
Total %	0.1	29.2	0.0	0.0	29.2	0.3	0.1	19.1	0.0	19.4	23.1	28.0	0.1	0.0	51.2	0.1	0.0	0.1	0.0	0.2	
Exiting Leg Total	848					691					1448					7					2994

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
12:00 PM	0	117	0	0	117	1	0	72	0	73	93	103	0	0	196	0	0	0	0	0	386
12:15 PM	0	113	0	0	113	1	0	106	0	107	83	95	1	0	179	0	0	0	0	0	399
12:30 PM	1	113	0	0	114	1	0	57	0	58	81	115	0	0	196	1	0	1	0	2	370
12:45 PM	1	113	0	0	114	3	1	75	0	79	94	97	1	0	192	1	0	0	0	1	386
Total Volume	2	456	0	0	458	6	1	310	0	317	351	410	2	0	763	2	0	1	0	3	1541
% Approach Total	0.4	99.6	0.0	0.0		1.9	0.3	97.8	0.0		46.0	53.7	0.3	0.0		66.7	0.0	33.3	0.0		
PHF	0.500	0.974	0.000	0.000	0.979	0.500	0.250	0.731	0.000	0.741	0.934	0.891	0.500	0.000	0.973	0.500	0.000	0.250	0.000	0.375	0.966
Entering Leg	2	456	0	0	458	6	1	310	0	317	351	410	2	0	763	2	0	1	0	3	1541
Exiting Leg	417					351					768					5					1541
Total	875					668					1531					8					3082

PDI File #: **197004 BB**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	3	0	0	3	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	6
11:15 AM	0	4	0	0	4	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	6
11:30 AM	0	0	0	0	0	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	3
11:45 AM	0	1	0	0	1	0	0	1	0	1	3	3	0	0	6	0	0	0	0	0	8
Total	0	8	0	0	8	0	0	4	0	4	4	7	0	0	11	0	0	0	0	0	23
12:00 PM	0	4	0	0	4	0	0	1	0	1	1	5	0	0	6	0	0	0	0	0	11
12:15 PM	0	3	0	0	3	0	0	3	0	3	1	1	0	0	2	0	0	0	0	0	8
12:30 PM	0	4	0	0	4	0	0	2	0	2	1	5	0	0	6	0	0	0	0	0	12
12:45 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Total	0	13	0	0	13	0	0	6	0	6	3	12	0	0	15	0	0	0	0	0	34
Grand Total	0	21	0	0	21	0	0	10	0	10	7	19	0	0	26	0	0	0	0	0	57
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		26.9	73.1	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	36.8	0.0	0.0	36.8	0.0	0.0	17.5	0.0	17.5	12.3	33.3	0.0	0.0	45.6	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	19					7					31					0					57
Buses	0	2	0	0	2	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	6
% Buses	0.0	9.5	0.0	0.0	9.5	0.0	0.0	30.0	0.0	30.0	0.0	5.3	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	10.5
Exiting Leg Total	1					0					5					0					6
Single-Unit Trucks	0	17	0	0	17	0	0	6	0	6	6	17	0	0	23	0	0	0	0	0	46
% Single-Unit	0.0	81.0	0.0	0.0	81.0	0.0	0.0	60.0	0.0	60.0	85.7	89.5	0.0	0.0	88.5	0.0	0.0	0.0	0.0	0.0	80.7
Exiting Leg Total	17					6					23					0					46
Articulated Trucks	0	2	0	0	2	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	5
% Articulated	0.0	9.5	0.0	0.0	9.5	0.0	0.0	10.0	0.0	10.0	14.3	5.3	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	8.8
Exiting Leg Total	1					1					3					0					5

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:45 AM	0	1	0	0	1	0	0	1	0	1	3	3	0	0	6	0	0	0	0	0	8
12:00 PM	0	4	0	0	4	0	0	1	0	1	1	5	0	0	6	0	0	0	0	0	11
12:15 PM	0	3	0	0	3	0	0	3	0	3	1	1	0	0	2	0	0	0	0	0	8
12:30 PM	0	4	0	0	4	0	0	2	0	2	1	5	0	0	6	0	0	0	0	0	12
Total Volume	0	12	0	0	12	0	0	7	0	7	6	14	0	0	20	0	0	0	0	0	39
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		30.0	70.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.583	0.000	0.583	0.500	0.700	0.000	0.000	0.833	0.000	0.000	0.000	0.000	0.000	0.813
Buses	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	3
Buses %	0.0	8.3	0.0	0.0	8.3	0.0	0.0	14.3	0.0	14.3	0.0	7.1	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	7.7
Single-Unit Trucks	0	9	0	0	9	0	0	5	0	5	5	12	0	0	17	0	0	0	0	0	31
Single-Unit %	0.0	75.0	0.0	0.0	75.0	0.0	0.0	71.4	0.0	71.4	83.3	85.7	0.0	0.0	85.0	0.0	0.0	0.0	0.0	0.0	79.5
Articulated Trucks	0	2	0	0	2	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	5
Articulated %	0.0	16.7	0.0	0.0	16.7	0.0	0.0	14.3	0.0	14.3	16.7	7.1	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	12.8
Buses	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	3
Single-Unit Trucks	0	9	0	0	9	0	0	5	0	5	5	12	0	0	17	0	0	0	0	0	31
Articulated Trucks	0	2	0	0	2	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	5
Total Entering Leg	0	12	0	0	12	0	0	7	0	7	6	14	0	0	20	0	0	0	0	0	39
Buses	1					0					2					0					3
Single-Unit Trucks	12					5					14					0					31
Articulated Trucks	1					1					3					0					5
Total Exiting Leg	14					6					19					0					39

PDI File #: **197004 BB**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Buses

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
Grand Total	0	2	0	0	2	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	0
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	33.3	0.0	0.0	33.3	0.0	0.0	50.0	0.0	50.0	0.0	16.7	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total	1					0					5					0					6

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	1.000
Entering Leg	0	0	0	0	0	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	0
Exiting Leg	1					0					3					0					4
Total	1					3					4					0					8

PDI File #: **197004 BB**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Single-Unit Trucks

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	3	0	0	3	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	6
11:15 AM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5
11:30 AM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	2
11:45 AM	0	1	0	0	1	0	0	0	0	0	3	3	0	0	6	0	0	0	0	0	7
Total	0	8	0	0	8	0	0	1	0	1	4	7	0	0	11	0	0	0	0	0	20
12:00 PM	0	3	0	0	3	0	0	1	0	1	1	3	0	0	4	0	0	0	0	0	8
12:15 PM	0	3	0	0	3	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	7
12:30 PM	0	2	0	0	2	0	0	1	0	1	1	5	0	0	6	0	0	0	0	0	9
12:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	0	9	0	0	9	0	0	5	0	5	2	10	0	0	12	0	0	0	0	0	26
Grand Total	0	17	0	0	17	0	0	6	0	6	6	17	0	0	23	0	0	0	0	0	46
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		26.1	73.9	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	37.0	0.0	0.0	37.0	0.0	0.0	13.0	0.0	13.0	13.0	37.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	17					6					23					0					46

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:45 AM	0	1	0	0	1	0	0	0	0	0	3	3	0	0	6	0	0	0	0	0	7
12:00 PM	0	3	0	0	3	0	0	1	0	1	1	3	0	0	4	0	0	0	0	0	8
12:15 PM	0	3	0	0	3	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	7
12:30 PM	0	2	0	0	2	0	0	1	0	1	1	5	0	0	6	0	0	0	0	0	9
Total Volume	0	9	0	0	9	0	0	5	0	5	5	12	0	0	17	0	0	0	0	0	31
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		29.4	70.6	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.000	0.000	0.750	0.000	0.000	0.417	0.000	0.417	0.417	0.600	0.000	0.000	0.708	0.000	0.000	0.000	0.000	0.000	0.861
Entering Leg	0	9	0	0	9	0	0	5	0	5	5	12	0	0	17	0	0	0	0	0	31
Exiting Leg	12					5					14					0					31
Total	21					10					31					0					62

PDI File #: **197004 BB**
 Location: **N: Rantoule Street S: Cabot Street (Route 1A)**
 Location: **E: Cabot Street (Route 1A) W: Driveway**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Articulated Trucks

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
12:30 PM	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	5
Grand Total	0	2	0	0	2	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	5
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		50.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	40.0	0.0	0.0	40.0	0.0	0.0	20.0	0.0	20.0	20.0	20.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	1					1					3					0					5

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoule Street					Cabot Street (Route 1A)					Cabot Street (Route 1A)					Driveway					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
12:00 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	2	0	0	2	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	5
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		50.0	50.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.250	0.000	0.250	0.250	0.250	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.625
Entering Leg	0	2	0	0	2	0	0	1	0	1	1	1	0	0	2	0	0	0	0	0	5
Exiting Leg	1					1					3					0					5
Total	3					2					5					0					10

PDI File #: 197004 BB
 Location: N: Rantoule Street S: Cabot Street (Route 1A)
 Location: E: Cabot Street (Route 1A) W: Driveway
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 1, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Bicycles (on Roadway and Crosswalks)

	Rantoule Street								Cabot Street (Route 1A)								Cabot Street (Route 1A)								Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	
11:15 AM	0	1	0	0	0	1	2	1	0	1	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5		
11:30 AM	0	1	0	0	0	0	1	0	0	2	0	0	0	2	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	5		
11:45 AM	0	5	0	0	0	0	5	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9		
Total	0	7	0	0	0	1	8	1	0	9	0	0	1	11	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	22		
12:00 PM	0	1	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
12:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
12:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	3		
12:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5		
Total	0	2	0	0	0	0	2	0	0	5	0	1	0	6	2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	11		
Grand Total	0	9	0	0	0	1	10	1	0	14	0	1	1	17	5	1	0	0	0	0	0	6	0	0	0	0	0	0	0	0	33		
Approach %	0.0	90.0	0.0	0.0	0.0	10.0		5.9	0.0	82.4	0.0	5.9	5.9		83.3	16.7	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Total %	0.0	27.3	0.0	0.0	0.0	3.0	30.3	3.0	0.0	42.4	0.0	3.0	3.0	51.5	15.2	3.0	0.0	0.0	0.0	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Exiting Leg Total								3								7								23								0	33

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoule Street								Cabot Street (Route 1A)								Cabot Street (Route 1A)								Driveway								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3		
11:15 AM	0	1	0	0	0	1	2	1	0	1	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5		
11:30 AM	0	1	0	0	0	0	1	0	0	2	0	0	0	2	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	5		
11:45 AM	0	5	0	0	0	0	5	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9		
Total Volume	0	7	0	0	0	1	8	1	0	9	0	0	1	11	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	22		
% Approach Total	0.0	87.5	0.0	0.0	0.0	12.5		9.1	0.0	81.8	0.0	0.0	9.1		100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0					
PHF	0.000	0.350	0.000	0.000	0.000	0.250	0.400	0.250	0.000	0.563	0.000	0.000	0.250	0.688	0.375	0.000	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.611				
Entering Leg	0	7	0	0	0	1	8	1	0	9	0	0	1	11	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	22		
Exiting Leg								2								4								16								0	22
Total								10								15								19								0	44

PDI File #: 197004 BB
 Location: N: Rantoule Street S: Cabot Street (Route 1A)
 Location: E: Cabot Street (Route 1A) W: Driveway
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 1, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



Pedestrians

	Rantoule Street							Cabot Street (Route 1A)							Cabot Street (Route 1A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2		
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	4			
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2			
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	0	2	3	3			
Total	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	5	3	8	11	11			
12:00 PM	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	1	1	2	5	5			
12:15 PM	0	0	0	0	1	0	1	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	1	1	4	4			
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2			
12:45 PM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	2	4	4			
Total	0	0	0	0	2	1	3	0	0	0	0	4	2	6	0	0	0	0	0	0	0	3	3	6	15	15			
Grand Total	0	0	0	0	2	1	3	0	0	0	0	4	5	9	0	0	0	0	0	0	0	8	6	14	26	26			
Approach %	0	0	0	0	66.7	33.3		0	0	0	0	44.4	55.6		0	0	0	0	0	0	0	57.1	42.9						
Total %	0	0	0	0	7.69	3.85	11.5	0	0	0	0	15.4	19.2	34.6	0	0	0	0	0	0	0	30.8	23.1	53.8					
Exiting Leg Total	3							9							0							14							26

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Rantoule Street							Cabot Street (Route 1A)							Cabot Street (Route 1A)							Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
12:00 PM	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	1	1	2	5	5			
12:15 PM	0	0	0	0	1	0	1	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	1	1	4	4			
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	0	1	2	2			
12:45 PM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	2	4	4			
Total Volume	0	0	0	0	2	1	3	0	0	0	0	4	2	6	0	0	0	0	0	0	0	3	3	6	15	15			
% Approach Total	0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0						
PHF	0.000	0.000	0.000	0.000	0.500	0.250	0.750	0.000	0.000	0.000	0.000	0.500	0.500	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.750	0.750	0.750	0.750			
Entering Leg	0	0	0	0	2	1	3	0	0	0	0	4	2	6	0	0	0	0	0	0	0	3	3	6	15	15			
Exiting Leg	3							6							0							6							15
Total	6							12							0							12							30

PDI File #: 197004 C

Location: N: Lothrop Street S: Driveway NW: Bartlett Street

Location: E: Water Street W: Water Street

City, State: Beverly, MA

Client: GPI/ D. Halpert

Site Code: 2019071

Count Date: Thursday, May 30, 2019

Start Time: 4:00 PM

End Time: 6:00 PM

Class:



46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

Table with columns for Street (Lothrop, Water, Driveway, Water, Bartlett) and direction (from North, East, South, West, Northwest). Rows include time intervals (4:00 PM to 5:45 PM), Grand Total, and percentages for Approach, Total, and Exiting Leg.

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

Table showing peak hour analysis starting at 4:45 PM. Columns include Street and direction. Rows include time intervals (4:45 PM to 5:30 PM), Total Volume, PHF, and percentages for Cars, Heavy Vehicles, and Entering/Exiting Legs.

PDI File #: 197004 C
 Location: N: Lothrop Street S: Driveway NW: Bartlett Street
 Location: E: Water Street W: Water Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Thursday, May 30, 2019
 Start Time: 4:00 PM
 End Time: 6:00 PM
 Class:



Cars

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total	
	from North						from East						from South						from West						from Northwest							
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total		
4:00 PM	1	32	0	7	0	40	0	1	0	0	0	1	0	0	0	1	0	0	0	1	5	43	6	1	56	0	0	1	0	0	1	99
4:15 PM	1	42	2	0	0	45	2	6	1	0	0	9	0	0	0	0	0	0	0	4	65	6	0	75	0	0	1	4	0	5	134	
4:30 PM	1	40	3	5	0	49	1	0	1	0	0	2	0	1	0	0	0	1	1	7	98	11	0	117	1	1	1	0	0	3	172	
4:45 PM	6	46	2	8	0	62	9	5	2	0	0	16	0	0	0	2	0	2	2	12	139	6	0	159	3	0	5	0	0	8	247	
Total	9	160	7	20	0	196	12	12	4	0	0	28	0	1	0	3	0	4	4	28	345	29	1	407	4	1	8	4	0	17	652	
5:00 PM	4	44	0	5	0	53	5	2	4	0	0	11	0	1	0	0	0	1	1	10	150	6	0	167	7	2	2	0	0	11	243	
5:15 PM	3	34	1	7	0	45	5	3	4	0	0	12	0	0	1	0	0	1	1	9	128	9	0	147	6	0	2	0	0	8	213	
5:30 PM	4	41	1	1	0	47	2	1	4	0	0	7	0	0	0	1	0	1	1	1	123	6	0	131	8	0	1	1	0	10	196	
5:45 PM	0	45	3	3	0	51	5	2	1	0	0	8	0	0	0	1	0	1	2	3	98	4	0	107	3	0	1	1	0	5	172	
Total	11	164	5	16	0	196	17	8	13	0	0	38	0	1	1	2	0	4	5	23	499	25	0	552	24	2	6	2	0	34	824	
Grand Total	20	324	12	36	0	392	29	20	17	0	0	66	0	2	1	5	0	8	9	51	844	54	1	959	28	3	14	6	0	51	1476	
Approach %	5.1	82.7	3.1	9.2	0.0		43.9	30.3	25.8	0.0	0.0		0.0	25.0	12.5	62.5	0.0		0.9	5.3	88.0	5.6	0.1		54.9	5.9	27.5	11.8	0.0			
Total %	1.4	22.0	0.8	2.4	0.0	26.6	2.0	1.4	1.2	0.0	0.0	4.5	0.0	0.1	0.1	0.3	0.0	0.5	0.6	3.5	57.2	3.7	0.1	65.0	1.9	0.2	0.9	0.4	0.0	3.5		
Exiting Leg Total	881						101						24						375						95						1476	

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:45 PM	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	
4:45 PM	6	46	2	8	0	62	9	5	2	0	0	16	0	0	0	2	0	2	2	12	139	6	0	159	3	0	5	0	0	8	247
5:00 PM	4	44	0	5	0	53	5	2	4	0	0	11	0	1	0	0	0	1	1	10	150	6	0	167	7	2	2	0	0	11	243
5:15 PM	3	34	1	7	0	45	5	3	4	0	0	12	0	0	1	0	0	1	1	9	128	9	0	147	6	0	2	0	0	8	213
5:30 PM	4	41	1	1	0	47	2	1	4	0	0	7	0	0	0	1	0	1	1	1	123	6	0	131	8	0	1	1	0	10	196
Total Volume	17	165	4	21	0	207	21	11	14	0	0	46	0	1	1	3	0	5	5	32	540	27	0	604	24	2	10	1	0	37	899
% Approach Total	8.2	79.7	1.9	10.1	0.0		45.7	23.9	30.4	0.0	0.0		0.0	20.0	20.0	60.0	0.0		0.8	5.3	89.4	4.5	0.0		64.9	5.4	27.0	2.7	0.0		
PHF	0.708	0.897	0.500	0.656	0.000	0.835	0.583	0.550	0.875	0.000	0.000	0.719	0.000	0.250	0.250	0.375	0.000	0.625	0.625	0.667	0.900	0.750	0.000	0.904	0.750	0.250	0.500	0.250	0.000	0.841	0.910
Entering Leg	17	165	4	21	0	207	21	11	14	0	0	46	0	1	1	3	0	5	5	32	540	27	0	604	24	2	10	1	0	37	899
Exiting Leg	563						63						11						206						56						899
Total	770						109						16						810						93						1798

PDI File #: **197004 C**
 Location: **N: Lothrop Street S: Driveway NW: Bartlett Street**
 Location: **E: Water Street W: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2			
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	4			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1			
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	2	0	3	0	0	0	1	5			
Total	0	2	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	1	7	0	8	0	0	0	1	12			
5:00 PM	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	5			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2			
Total	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	0	5	1	0	6	0	0	0	0	9			
Grand Total	0	3	0	0	0	3	0	0	3	0	0	3	0	0	0	0	0	0	0	1	12	1	0	14	0	0	0	1	21		
Approach %	0.0	100.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	7.1	85.7	7.1	0.0		0.0	0.0	0.0	100.0	0.0		
Total %	0.0	14.3	0.0	0.0	0.0	14.3	0.0	0.0	14.3	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0		0.0	4.8	57.1	4.8	0.0	66.7	0.0	0.0	0.0	4.8	4.8		
Exiting Leg Total	13						1						0						6						1						21
Buses	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5		
% Buses	0.0	33.3	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	33.3	0.0	0.0	28.6	0.0	0.0	0.0	0.0	23.8		
Exiting Leg Total	4						0						0						1						0						5
Single-Unit Trucks	0	1	0	0	0	1	0	0	3	0	0	3	0	0	0	0	0	0	0	1	8	1	0	10	0	0	0	1	0	1	15
% Single-Unit	0.0	33.3	0.0	0.0	0.0	33.3	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	66.7	100.0	0.0	71.4	0.0	0.0	0.0	100.0	0.0	100.0	71.4
Exiting Leg Total	9						1						0						4						1						15
Articulated Trucks	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
% Articulated	0.0	33.3	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	
Exiting Leg Total	0						0						0						1						0						1

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1		
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	2	0	3	0	0	0	1	0	5		
5:00 PM	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5		
Total Volume	0	2	0	0	0	2	0	0	2	0	0	2	0	0	0	0	0	0	0	1	9	0	0	10	0	0	0	1	15		
% Approach Total	0.0	100.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	10.0	90.0	0.0	0.0		0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000		0.000	0.250	0.750	0.000	0.000	0.833	0.000	0.000	0.000	0.250	0.250	0.750	
Buses	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5		
Buses %	0.0	50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	44.4	0.0	0.0	40.0	0.0	0.0	0.0	0.0	33.3		
Single-Unit Trucks	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	1	5	0	6	0	0	0	1	0	9		
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	100.0	55.6	0.0	60.0	0.0	0.0	0.0	100.0	0.0	100.0	60.0	
Articulated Trucks	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
Articulated %	0.0	50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8		

PDI File #: **197004 C**
 Location: **N: Lothrop Street S: Driveway NW: Bartlett Street**
 Location: **E: Water Street W: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street							
	from North						from East						from South						from West						from Northwest							
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Total	
Buses	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	5
Single-Unit Trucks	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	1	5	0	0	6	0	0	0	1	0	1	0	9
Articulated Trucks	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Entering Leg	0	2	0	0	0	2	0	0	2	0	0	2	0	0	0	0	0	0	0	1	9	0	0	10	0	0	0	1	0	1	0	15
Buses						4						0						0						1						0	5	
Single-Unit Trucks						6						1						0						2						0	9	
Articulated Trucks						0						0						0						1						0	1	
Total Exiting Leg						10						1						0						4						0	15	

PDI File #: 197004 C

Location: N: Lothrop Street S: Driveway NW: Bartlett Street

Location: E: Water Street W: Water Street

City, State: Beverly, MA

Client: GPI/ D. Halpert

Site Code: 2019071

Count Date: Thursday, May 30, 2019

Start Time: 4:00 PM

End Time: 6:00 PM

Class:



PRECISION DATA INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

Table with columns for Street (Lothrop, Water, Driveway, Water, Bartlett), Direction (from North, East, South, West, Northwest), and Movement (Hard Right, Right, Thru, Left, U-Turn, Total). Rows include time intervals (4:00 PM to 5:45 PM), Grand Total, and Approach %.

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

Table for Peak Hour Analysis (4:15 PM to 5:00 PM) with similar columns and rows as the main table, including PHF and Entering/Exiting Leg data.

PDI File #: **197004 C**
 Location: **N: Lothrop Street S: Driveway NW: Bartlett Street**
 Location: **E: Water Street W: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Single-Unit Trucks

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	1	4		
Total	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	1	4	0	0	0	1	0	1	8			
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2			
Total	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	4	1	0	0	0	0	0	7				
Grand Total	0	1	0	0	0	1	0	0	3	0	0	3	0	0	0	0	0	0	0	1	8	1	0	10	0	0	0	15			
Approach %	0.0	100.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	10.0	80.0	10.0	0.0		0.0	0.0	0.0	100.0	0.0		
Total %	0.0	6.7	0.0	0.0	0.0	6.7	0.0	0.0	20.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0		6.7	53.3	6.7	0.0	66.7	0.0	0.0	0.0	6.7	6.7		
Exiting Leg Total	9						1						0						4						1						15

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total	
	from North						from East						from South						from West						from Northwest							
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1		
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	1	4			
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	3		
Total Volume	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	1	5	0	0	6	0	0	0	1	9			
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	16.7	83.3	0.0	0.0		0.0	0.0	0.0	100.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000		0.250	0.625	0.000	0.000	0.750	0.000	0.000	0.000	0.250	0.000	0.250	0.563	
Entering Leg	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0		0	1	5	0	0	6	0	0	0	1	0	1	9
Exiting Leg	6						1						0						2						0						9	
Total	6						3						0						8						1						18	

PDI File #: **197004 C**
 Location: **N: Lothrop Street S: Driveway NW: Bartlett Street**
 Location: **E: Water Street W: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Articulated Trucks

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total						
	from North						from East						from South						from West						from Northwest												
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total							
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0						0						0						1						0	1											

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total						
	from North						from East						from South						from West						from Northwest												
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total							
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	
Entering Leg	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg	0						0						0						1						0	1											
Total	1						0						0						1						0	2											

PDI File #: 197004 C

Location: N: Lothrop Street S: Driveway NW: Bartlett Street

Location: E: Water Street W: Water Street

City, State: Beverly, MA

Client: GPI/ D. Halpert

Site Code: 2019071

Count Date: Thursday, May 30, 2019

Start Time: 4:00 PM

End Time: 6:00 PM

Class:



PRECISION DATA INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

Table with columns for Lothrop Street, Water Street, Driveway, Water Street, and Bartlett Street, categorized by direction (from North, East, South, West, Northwest) and time intervals (4:00 PM, 4:15 PM, 4:30 PM, 4:45 PM, 5:00 PM, 5:15 PM, 5:30 PM, 5:45 PM, Total, Grand Total, Approach %, Total %, Exiting Leg Total).

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

Table with columns for Lothrop Street, Water Street, Driveway, Water Street, and Bartlett Street, categorized by direction (from North, East, South, West, Northwest) and time intervals (4:00 PM, 4:15 PM, 4:30 PM, 4:45 PM, Total Volume, % Approach Total, PHF, Entering Leg, Exiting Leg, Total).

PDI File #: 197004 C

Location: N: Lothrop Street S: Driveway NW: Bartlett Street

Location: E: Water Street W: Water Street

City, State: Beverly, MA

Client: GPI/ D. Halpert

Site Code: 2019071

Count Date: Thursday, May 30, 2019

Start Time: 4:00 PM

End Time: 6:00 PM

Class:



PRECISION DATA INDUSTRIES, LLC

46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

Table with columns for streets (Lothrop Street, Water Street, Driveway, Water Street, Bartlett Street) and pedestrian counts (Right, Thru, Left, etc.) for various times (4:00 PM, 4:15 PM, etc.) and a Grand Total row.

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

Table with columns for streets (Lothrop Street, Water Street, Driveway, Water Street, Bartlett Street) and pedestrian counts for peak hour times (4:45 PM, 5:00 PM, etc.) and a Total row, including PHF and % Approach Total.

PDI File #: 197004 CC
 Location: N: Lothrop Street S: Driveway NW: Bartlett Street
 Location: E: Water Street W: Water Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 1, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



Cars and Heavy Vehicles (Combined)

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	
11:00 AM	2	33	0	2	0	37	6	2	3	0	0	11	0	0	0	0	0	0	4	5	30	1	0	40	1	0	2	0	0	3	91
11:15 AM	0	30	1	1	0	32	6	1	2	0	0	9	0	0	0	0	0	0	1	4	45	1	0	51	3	2	0	3	1	9	101
11:30 AM	2	28	1	2	0	33	4	1	3	0	0	8	0	1	1	0	0	2	0	5	37	2	1	45	3	1	1	1	0	6	94
11:45 AM	1	22	4	1	0	28	5	7	2	0	0	14	0	2	2	0	0	4	0	4	37	3	1	45	2	0	2	0	0	4	95
Total	5	113	6	6	0	130	21	11	10	0	0	42	0	3	3	0	0	6	5	18	149	7	2	181	9	3	5	4	1	22	381
12:00 PM	3	36	2	5	0	46	3	1	3	0	0	7	0	1	1	2	0	4	2	4	31	2	0	39	2	0	1	0	0	3	99
12:15 PM	3	39	3	3	0	48	2	1	0	0	0	3	0	2	1	0	0	3	4	4	32	3	0	43	3	1	2	1	0	7	104
12:30 PM	2	47	1	1	0	51	4	3	4	0	0	11	0	1	2	2	0	5	4	5	41	0	0	50	0	1	1	2	0	4	121
12:45 PM	1	52	1	2	1	57	2	1	7	0	0	10	0	1	0	2	0	3	2	3	40	7	0	52	0	0	3	1	0	4	126
Total	9	174	7	11	1	202	11	6	14	0	0	31	0	5	4	6	0	15	12	16	144	12	0	184	5	2	7	4	0	18	450
Grand Total	14	287	13	17	1	332	32	17	24	0	0	73	0	8	7	6	0	21	17	34	293	19	2	365	14	5	12	8	1	40	831
Approach %	4.2	86.4	3.9	5.1	0.3		43.8	23.3	32.9	0.0	0.0		0.0	38.1	33.3	28.6	0.0		4.7	9.3	80.3	5.2	0.5		35.0	12.5	30.0	20.0	2.5		
Total %	1.7	34.5	1.6	2.0	0.1	40.0	3.9	2.0	2.9	0.0	0.0	8.8	0.0	1.0	0.8	0.7	0.0	2.5	2.0	4.1	35.3	2.3	0.2	43.9	1.7	0.6	1.4	1.0	0.1	4.8	
Exiting Leg Total	342						63						35						333						58						831
Cars	14	284	13	17	1	329	32	17	22	0	0	71	0	8	7	6	0	21	17	34	288	18	2	359	12	5	12	8	1	38	818
% Cars	100.0	99.0	100.0	100.0	100.0	99.1	100.0	100.0	91.7	0.0	0.0	97.3	0.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	98.3	94.7	100.0	98.4	85.7	100.0	100.0	100.0	100.0	95.0	98.4
Exiting Leg Total	337						63						35						326						57						818
Heavy Vehicles	0	3	0	0	0	3	0	0	2	0	0	2	0	0	0	0	0	0	0	0	5	1	0	6	2	0	0	0	0	2	13
% Heavy Vehicles	0.0	1.0	0.0	0.0	0.0	0.9	0.0	0.0	8.3	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	5.3	0.0	1.6	14.3	0.0	0.0	0.0	0.0	5.0	1.6
Exiting Leg Total	5						0						0						7						1						13

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	
12:00 PM	3	36	2	5	0	46	3	1	3	0	0	7	0	1	1	2	0	4	2	4	31	2	0	39	2	0	1	0	0	3	99
12:15 PM	3	39	3	3	0	48	2	1	0	0	0	3	0	2	1	0	0	3	4	4	32	3	0	43	3	1	2	1	0	7	104
12:30 PM	2	47	1	1	0	51	4	3	4	0	0	11	0	1	2	2	0	5	4	5	41	0	0	50	0	1	1	2	0	4	121
12:45 PM	1	52	1	2	1	57	2	1	7	0	0	10	0	1	0	2	0	3	2	3	40	7	0	52	0	0	3	1	0	4	126
Total Volume	9	174	7	11	1	202	11	6	14	0	0	31	0	5	4	6	0	15	12	16	144	12	0	184	5	2	7	4	0	18	450
% Approach Total	4.5	86.1	3.5	5.4	0.5		35.5	19.4	45.2	0.0	0.0		0.0	33.3	26.7	40.0	0.0		6.5	8.7	78.3	6.5	0.0		27.8	11.1	38.9	22.2	0.0		
PHF	0.750	0.837	0.583	0.550	0.250	0.886	0.688	0.500	0.500	0.000	0.000	0.705	0.000	0.625	0.500	0.750	0.000	0.750	0.750	0.800	0.878	0.429	0.000	0.885	0.417	0.500	0.583	0.500	0.000	0.643	0.893
Cars	9	173	7	11	1	201	11	6	13	0	0	30	0	5	4	6	0	15	12	16	142	11	0	181	5	2	7	4	0	18	445
Cars %	100.0	99.4	100.0	100.0	100.0	99.5	100.0	100.0	92.9	0.0	0.0	96.8	0.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	98.6	91.7	0.0	98.4	100.0	100.0	100.0	100.0	0.0	100.0	98.9
Heavy Vehicles	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	5
Heavy Vehicles %	0.0	0.6	0.0	0.0	0.0	0.5	0.0	0.0	7.1	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	8.3	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Cars Enter Leg	9	173	7	11	1	201	11	6	13	0	0	30	0	5	4	6	0	15	12	16	142	11	0	181	5	2	7	4	0	18	445
Heavy Enter Leg	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	5
Total Entering Leg	9	174	7	11	1	202	11	6	14	0	0	31	0	5	4	6	0	15	12	16	144	12	0	184	5	2	7	4	0	18	450
Cars Exiting Leg	163						34						21						197						30						445
Heavy Exiting Leg	2						0						0						2						1						5
Total Exiting Leg	165						34						21						199						31						450

PDI File #: 197004 CC
 Location: N: Lothrop Street S: Driveway NW: Bartlett Street
 Location: E: Water Street W: Water Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 1, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



Cars

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	
11:00 AM	2	31	0	2	0	35	6	2	3	0	0	11	0	0	0	0	0	0	4	5	29	1	0	39	1	0	2	0	0	3	88
11:15 AM	0	30	1	1	0	32	6	1	2	0	0	9	0	0	0	0	0	0	1	4	45	1	0	51	2	2	0	3	1	8	100
11:30 AM	2	28	1	2	0	33	4	1	2	0	0	7	0	1	1	0	0	2	0	5	37	2	1	45	3	1	1	1	0	6	93
11:45 AM	1	22	4	1	0	28	5	7	2	0	0	14	0	2	2	0	0	4	0	4	35	3	1	43	1	0	2	0	0	3	92
Total	5	111	6	6	0	128	21	11	9	0	0	41	0	3	3	0	0	6	5	18	146	7	2	178	7	3	5	4	1	20	373
12:00 PM	3	36	2	5	0	46	3	1	2	0	0	6	0	1	1	2	0	4	2	4	31	2	0	39	2	0	1	0	0	3	98
12:15 PM	3	38	3	3	0	47	2	1	0	0	0	3	0	2	1	0	0	3	4	4	32	2	0	42	3	1	2	1	0	7	102
12:30 PM	2	47	1	1	0	51	4	3	4	0	0	11	0	1	2	2	0	5	4	5	41	0	0	50	0	1	1	2	0	4	121
12:45 PM	1	52	1	2	1	57	2	1	7	0	0	10	0	1	0	2	0	3	2	3	38	7	0	50	0	0	3	1	0	4	124
Total	9	173	7	11	1	201	11	6	13	0	0	30	0	5	4	6	0	15	12	16	142	11	0	181	5	2	7	4	0	18	445
Grand Total	14	284	13	17	1	329	32	17	22	0	0	71	0	8	7	6	0	21	17	34	288	18	2	359	12	5	12	8	1	38	818
Approach %	4.3	86.3	4.0	5.2	0.3		45.1	23.9	31.0	0.0	0.0		0.0	38.1	33.3	28.6	0.0		4.7	9.5	80.2	5.0	0.6		31.6	13.2	31.6	21.1	2.6		
Total %	1.7	34.7	1.6	2.1	0.1	40.2	3.9	2.1	2.7	0.0	0.0	8.7	0.0	1.0	0.9	0.7	0.0	2.6	2.1	4.2	35.2	2.2	0.2	43.9	1.5	0.6	1.5	1.0	0.1	4.6	
Exiting Leg Total						337						63						35						326						57	818

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	
12:00 PM	3	36	2	5	0	46	3	1	2	0	0	6	0	1	1	2	0	4	2	4	31	2	0	39	2	0	1	0	0	3	98
12:15 PM	3	38	3	3	0	47	2	1	0	0	0	3	0	2	1	0	0	3	4	4	32	2	0	42	3	1	2	1	0	7	102
12:30 PM	2	47	1	1	0	51	4	3	4	0	0	11	0	1	2	2	0	5	4	5	41	0	0	50	0	1	1	2	0	4	121
12:45 PM	1	52	1	2	1	57	2	1	7	0	0	10	0	1	0	2	0	3	2	3	38	7	0	50	0	0	3	1	0	4	124
Total Volume	9	173	7	11	1	201	11	6	13	0	0	30	0	5	4	6	0	15	12	16	142	11	0	181	5	2	7	4	0	18	445
% Approach Total	4.5	86.1	3.5	5.5	0.5		36.7	20.0	43.3	0.0	0.0		0.0	33.3	26.7	40.0	0.0		6.6	8.8	78.5	6.1	0.0		27.8	11.1	38.9	22.2	0.0		
PHF	0.750	0.832	0.583	0.550	0.250	0.882	0.688	0.500	0.464	0.000	0.000	0.682	0.000	0.625	0.500	0.750	0.000	0.750	0.750	0.800	0.866	0.393	0.000	0.905	0.417	0.500	0.583	0.500	0.000	0.643	0.897
Entering Leg	9	173	7	11	1	201	11	6	13	0	0	30	0	5	4	6	0	15	12	16	142	11	0	181	5	2	7	4	0	18	445
Exiting Leg						163						34						21						197						30	445
Total						364						64						36						378						48	890

PDI File #: **197004 CC**
 Location: **N: Lothrop Street S: Driveway NW: Bartlett Street**
 Location: **E: Water Street W: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	
11:00 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	3
Total	0	2	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	2	8	
12:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
Total	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	5	
Grand Total	0	3	0	0	0	3	0	0	2	0	0	2	0	0	0	0	0	0	0	5	1	0	6	2	0	0	0	0	2	13	
Approach %	0.0	100.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	83.3	16.7	0.0		100.0	0.0	0.0	0.0	0.0		
Total %	0.0	23.1	0.0	0.0	0.0	23.1	0.0	0.0	15.4	0.0	0.0	15.4	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	38.5	7.7	0.0	46.2	15.4	0.0	0.0	0.0	15.4	
Exiting Leg Total	5						0						0						7						1						13
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	40.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	15.4
Exiting Leg Total	2						0						0						0						0						2
Single-Unit Trucks	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	2	0	0	0	0	2	9
% Single-Unit	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	60.0	100.0	0.0	66.7	100.0	0.0	0.0	0.0	100.0	69.2	
Exiting Leg Total	3						0						0						5						1						9
Articulated Trucks	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.4
Exiting Leg Total	0						0						0						2						0						2

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	
11:00 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	0	0	0	0	0	3
Total Volume	0	2	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	3	0	0	3	2	0	0	0	0	2	8	
% Approach Total	0.0	100.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.375	0.000	0.375	0.500	0.000	0.000	0.000	0.500	0.667	
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	33.3	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	12.5	
Single-Unit Trucks	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	0	0	0	2	6
Single-Unit %	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	66.7	0.0	0.0	66.7	100.0	0.0	0.0	0.0	100.0	75.0	
Articulated Trucks	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Articulated %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5

PDI File #: **197004 CC**
 Location: **N: Lothrop Street S: Driveway NW: Bartlett Street**
 Location: **E: Water Street W: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street							
	from North						from East						from South						from West						from Northwest							
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Total	
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
Single-Unit Trucks	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2
Articulated Trucks	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	2	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	3	2	0	0	0	0	2	8
Buses						1						0						0						0	1							
Single-Unit Trucks						2						0						0						4	0	6						
Articulated Trucks						0						0						0						1	0	1						
Total Exiting Leg						3						0						0						5	0	8						

PDI File #: **197004 CC**
 Location: **N: Lothrop Street S: Driveway NW: Bartlett Street**
 Location: **E: Water Street W: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Buses

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total						
	from North						from East						from South						from West						from Northwest												
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total							
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Exiting Leg Total							2							0							0							0	2								

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total						
	from North						from East						from South						from West						from Northwest												
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total							
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.250	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg							1							0							0							0	1								
Total							1							0							1							0	2								

PDI File #: **197004 CC**
 Location: **N: Lothrop Street S: Driveway NW: Bartlett Street**
 Location: **E: Water Street W: Water Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Single-Unit Trucks

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	
11:00 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	2		
Total	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	0	0	0	6		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2		
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1		
Total	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	3		
Grand Total	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	2	0	0	0	0	9		
Approach %	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	75.0	25.0	0.0	100.0	0.0	0.0	0.0	0.0			
Total %	0.0	33.3	0.0	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	11.1	0.0	44.4	22.2	0.0	0.0	0.0	22.2		
Exiting Leg Total						3						0											5					1	9		

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						Total
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	
11:00 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1		
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	2		
Total Volume	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	0	0	0	6		
% Approach Total	0.0	100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.500	0.500		
Entering Leg	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	0	0	2	6	
Exiting Leg						2						0											4					0	6		
Total						4						0											6					2	12		

PDI File #: 197004 CC
 Location: N: Lothrop Street S: Driveway NW: Bartlett Street
 Location: E: Water Street W: Water Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 1, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



Articulated Trucks

	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
12:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
Grand Total	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0			
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Exiting Leg Total	0						0						0						2						0						2

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:15 AM	Lothrop Street						Water Street						Driveway						Water Street						Bartlett Street						
	from North						from East						from South						from West						from Northwest						
	Hard Right	Right	Thru	Left	U-Turn	Total	Right	Bear Right	Thru	Left	U-Turn	Total	Right	Thru	Bear Left	Left	U-Turn	Total	Right	Thru	Left	Hard Left	U-Turn	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Total	Total
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
Total Volume	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.500	
Entering Leg	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
Exiting Leg	0						0						0						2						0						2
Total	0						2						0						2						0						4

PDI File #: 197004 CC
 Location: N: Lothrop Street S: Driveway NW: Bartlett Street
 Location: E: Water Street W: Water Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 1, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



Bicycles (on Roadway and Crosswalks)

	Lothrop Street								Water Street								Driveway								Water Street								Bartlett Street								Total
	from North								from East								from South								from West								from Northwest								
	Hard Right	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	
11:00 AM	0	9	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9				
11:15 AM	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
11:30 AM	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1						
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1						
Total	2	9	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12						
12:00 PM	0	3	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9						
12:15 PM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5						
12:30 PM	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4						
12:45 PM	2	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2						
Total	3	5	0	0	0	0	0	8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25						
Grand Total	5	14	0	0	0	0	0	19	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	37						
Approach %	26.3	73.7	0.0	0.0	0.0	0.0	0.0		50.0	50.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	7.1	92.9	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total %	13.5	37.8	0.0	0.0	0.0	0.0	0.0	51.4	2.7	2.7	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	2.7	35.1	0.0	0.0	0.0	0.0	37.8	5.4	0.0	0.0	0.0	0.0	0.0	5.4		
Exiting Leg Total	14								1								0								16								6								37

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Lothrop Street								Water Street								Driveway								Water Street								Bartlett Street								Total
	from North								from East								from South								from West								from Northwest								
	Hard Right	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	
12:00 PM	0	3	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9						
12:15 PM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5						
12:30 PM	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4						
12:45 PM	2	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2						
Total Volume	3	5	0	0	0	0	0	8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	25						
% Approach Total	37.5	62.5	0.0	0.0	0.0	0.0	0.0		50.0	50.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	7.7	92.3	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.375	0.417	0.000	0.000	0.000	0.000	0.000	0.667	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.250	0.750	0.000	0.000	0.000	0.000	0.650	0.250	0.000	0.000	0.000	0.000	0.250	0.694		
Entering Leg	3	5	0	0	0	0	0	8	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	12	0	0	0	0	13	2	0	0	0	0	0	2	25
Exiting Leg	13								1								0								7								4								25
Total	21								3								0								20								6								50

PDI File #: 197004 CC
 Location: N: Lothrop Street S: Driveway NW: Bartlett Street
 Location: E: Water Street W: Water Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 1, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



Pedestrians

	Lothrop Street								Water Street								Driveway								Water Street								Bartlett Street								Total
	from North								from East								from South								from West								from Northwest								
	Hard Right	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	
11:00 AM	0	0	0	0	0	1	4	5	0	0	0	0	0	1	2	3	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	0	0	0	0	0	1	0	1	13
11:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	4	4	0	0	0	0	0	2	2	0	0	0	0	0	1	0	1	9	
11:30 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	0	0	0	0	0	1	1	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	7	
11:45 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	1	2	3	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
Total	0	0	0	0	0	2	8	10	0	0	0	0	0	2	7	9	0	0	0	0	0	3	8	11	0	0	0	0	0	1	4	5	0	0	0	0	2	0	2	37	
12:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
12:15 PM	0	0	0	0	0	5	0	5	0	0	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	2	13		
12:30 PM	0	0	0	0	0	1	1	2	0	0	0	0	0	0	1	1	0	0	0	0	0	1	4	5	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	9	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Total	0	0	0	0	0	9	1	10	0	0	0	0	0	5	3	8	0	0	0	0	0	2	5	7	0	0	0	0	0	1	1	2	0	0	0	0	0	2	2	29	
Grand Total	0	0	0	0	0	11	9	20	0	0	0	0	0	7	10	17	0	0	0	0	0	5	13	18	0	0	0	0	0	2	5	7	0	0	0	0	2	2	4	66	
Approach %	0	0	0	0	0	55	45		0	0	0	0	0	41.2	58.8		0	0	0	0	0	27.8	72.2		0	0	0	0	0	28.6	71.4		0	0	0	0	0	50	50		
Total %	0	0	0	0	0	16.7	13.6	30.3	0	0	0	0	0	10.6	15.2	25.8	0	0	0	0	0	7.58	19.7	27.3	0	0	0	0	0	3.03	7.58	10.6	0	0	0	0	0	3.03	3.03	6.06	
Exiting Leg Total	20								17								18								7								4								66

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Lothrop Street								Water Street								Driveway								Water Street								Bartlett Street								Total
	from North								from East								from South								from West								from Northwest								
	Hard Right	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	
11:00 AM	0	0	0	0	0	1	4	5	0	0	0	0	0	1	2	3	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	0	0	0	0	0	1	0	1	13
11:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	4	4	0	0	0	0	0	0	2	2	0	0	0	0	0	1	0	1	9
11:30 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	0	0	0	0	0	1	1	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	7
11:45 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	1	2	3	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Total Volume	0	0	0	0	0	2	8	10	0	0	0	0	0	2	7	9	0	0	0	0	0	3	8	11	0	0	0	0	0	1	4	5	0	0	0	0	2	0	2	37	
% Approach Total	0.0	0.0	0.0	0.0	0.0	20.0	80.0		0.0	0.0	0.0	0.0	0.0	22.2	77.8		0.0	0.0	0.0	0.0	0.0	27.3	72.7		0.0	0.0	0.0	0.0	20.0	80.0		0.0	0.0	0.0	0.0	0.0	100.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.875	0.750	0.000	0.000	0.000	0.000	0.000	0.375	0.500	0.688	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.625	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.712	
Entering Leg	0	0	0	0	0	2	8	10	0	0	0	0	0	2	7	9	0	0	0	0	0	3	8	11	0	0	0	0	0	1	4	5	0	0	0	0	2	0	2	37	
Exiting Leg	10								9								11								5								2								37
Total	20								18								22								10								4								74

PDI File #: **197004 D**
 Location: **N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)**
 Location: **E: School Street W: School Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Cars and Heavy Vehicles (Combined)

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	3	92	0	0	95	9	7	1	0	17	0	129	23	0	152	19	0	20	0	39	303
4:15 PM	5	111	0	0	116	7	7	0	0	14	0	146	23	0	169	22	0	11	0	33	332
4:30 PM	9	85	0	0	94	4	15	40	0	59	0	133	23	0	156	22	0	13	0	35	344
4:45 PM	6	69	0	0	75	6	14	38	0	58	0	147	17	0	164	21	0	17	0	38	335
Total	23	357	0	0	380	26	43	79	0	148	0	555	86	0	641	84	0	61	0	145	1314
5:00 PM	21	69	0	0	90	7	16	40	0	63	0	148	21	0	169	24	0	10	0	34	356
5:15 PM	9	81	0	0	90	9	18	33	0	60	0	135	14	0	149	21	0	7	0	28	327
5:30 PM	11	86	0	0	97	2	15	34	0	51	0	149	17	0	166	36	0	11	0	47	361
5:45 PM	6	82	0	0	88	5	20	23	0	48	0	113	19	0	132	21	0	10	0	31	299
Total	47	318	0	0	365	23	69	130	0	222	0	545	71	0	616	102	0	38	0	140	1343
Grand Total	70	675	0	0	745	49	112	209	0	370	0	1100	157	0	1257	186	0	99	0	285	2657
Approach %	9.4	90.6	0.0	0.0		13.2	30.3	56.5	0.0		0.0	87.5	12.5	0.0		65.3	0.0	34.7	0.0		
Total %	2.6	25.4	0.0	0.0	28.0	1.8	4.2	7.9	0.0	13.9	0.0	41.4	5.9	0.0	47.3	7.0	0.0	3.7	0.0	10.7	
Exiting Leg Total	1248					0					1070					339					2657
Cars	70	669	0	0	739	48	110	203	0	361	0	1078	154	0	1232	184	0	98	0	282	2614
% Cars	100.0	99.1	0.0	0.0	99.2	98.0	98.2	97.1	0.0	97.6	0.0	98.0	98.1	0.0	98.0	98.9	0.0	99.0	0.0	98.9	98.4
Exiting Leg Total	1224					0					1056					334					2614
Heavy Vehicles	0	6	0	0	6	1	2	6	0	9	0	22	3	0	25	2	0	1	0	3	43
% Heavy Vehicles	0.0	0.9	0.0	0.0	0.8	2.0	1.8	2.9	0.0	2.4	0.0	2.0	1.9	0.0	2.0	1.1	0.0	1.0	0.0	1.1	1.6
Exiting Leg Total	24					0					14					5					43

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:45 PM	6	69	0	0	75	6	14	38	0	58	0	147	17	0	164	21	0	17	0	38	335
5:00 PM	21	69	0	0	90	7	16	40	0	63	0	148	21	0	169	24	0	10	0	34	356
5:15 PM	9	81	0	0	90	9	18	33	0	60	0	135	14	0	149	21	0	7	0	28	327
5:30 PM	11	86	0	0	97	2	15	34	0	51	0	149	17	0	166	36	0	11	0	47	361
Total Volume	47	305	0	0	352	24	63	145	0	232	0	579	69	0	648	102	0	45	0	147	1379
% Approach Total	13.4	86.6	0.0	0.0		10.3	27.2	62.5	0.0		0.0	89.4	10.6	0.0		69.4	0.0	30.6	0.0		
PHF	0.560	0.887	0.000	0.000	0.907	0.667	0.875	0.906	0.000	0.921	0.000	0.971	0.821	0.000	0.959	0.708	0.000	0.662	0.000	0.782	0.955
Cars	47	303	0	0	350	24	61	142	0	227	0	568	67	0	635	102	0	44	0	146	1358
Cars %	100.0	99.3	0.0	0.0	99.4	100.0	96.8	97.9	0.0	97.8	0.0	98.1	97.1	0.0	98.0	100.0	0.0	97.8	0.0	99.3	98.5
Heavy Vehicles	0	2	0	0	2	0	2	3	0	5	0	11	2	0	13	0	0	1	0	1	21
Heavy Vehicles %	0.0	0.7	0.0	0.0	0.6	0.0	3.2	2.1	0.0	2.2	0.0	1.9	2.9	0.0	2.0	0.0	0.0	2.2	0.0	0.7	1.5
Cars Enter Leg	47	303	0	0	350	24	61	142	0	227	0	568	67	0	635	102	0	44	0	146	1358
Heavy Enter Leg	0	2	0	0	2	0	2	3	0	5	0	11	2	0	13	0	0	1	0	1	21
Total Entering Leg	47	305	0	0	352	24	63	145	0	232	0	579	69	0	648	102	0	45	0	147	1379
Cars Exiting Leg	636					0					547					175					1358
Heavy Exiting Leg	12					0					5					4					21
Total Exiting Leg	648					0					552					179					1379

PDI File #: **197004 D**
 Location: **N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)**
 Location: **E: School Street W: School Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Cars

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	3	91	0	0	94	8	7	1	0	16	0	127	22	0	149	19	0	20	0	39	298
4:15 PM	5	110	0	0	115	7	7	0	0	14	0	145	23	0	168	22	0	11	0	33	330
4:30 PM	9	84	0	0	93	4	15	37	0	56	0	127	23	0	150	21	0	13	0	34	333
4:45 PM	6	69	0	0	75	6	14	37	0	57	0	142	16	0	158	21	0	17	0	38	328
Total	23	354	0	0	377	25	43	75	0	143	0	541	84	0	625	83	0	61	0	144	1289
5:00 PM	21	67	0	0	88	7	16	40	0	63	0	144	20	0	164	24	0	10	0	34	349
5:15 PM	9	81	0	0	90	9	17	32	0	58	0	134	14	0	148	21	0	6	0	27	323
5:30 PM	11	86	0	0	97	2	14	33	0	49	0	148	17	0	165	36	0	11	0	47	358
5:45 PM	6	81	0	0	87	5	20	23	0	48	0	111	19	0	130	20	0	10	0	30	295
Total	47	315	0	0	362	23	67	128	0	218	0	537	70	0	607	101	0	37	0	138	1325
Grand Total	70	669	0	0	739	48	110	203	0	361	0	1078	154	0	1232	184	0	98	0	282	2614
Approach %	9.5	90.5	0.0	0.0		13.3	30.5	56.2	0.0		0.0	87.5	12.5	0.0		65.2	0.0	34.8	0.0		
Total %	2.7	25.6	0.0	0.0	28.3	1.8	4.2	7.8	0.0	13.8	0.0	41.2	5.9	0.0	47.1	7.0	0.0	3.7	0.0	10.8	
Exiting Leg Total	1224					0					1056					334					2614

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:45 PM	6	69	0	0	75	6	14	37	0	57	0	142	16	0	158	21	0	17	0	38	328
5:00 PM	21	67	0	0	88	7	16	40	0	63	0	144	20	0	164	24	0	10	0	34	349
5:15 PM	9	81	0	0	90	9	17	32	0	58	0	134	14	0	148	21	0	6	0	27	323
5:30 PM	11	86	0	0	97	2	14	33	0	49	0	148	17	0	165	36	0	11	0	47	358
Total Volume	47	303	0	0	350	24	61	142	0	227	0	568	67	0	635	102	0	44	0	146	1358
% Approach Total	13.4	86.6	0.0	0.0		10.6	26.9	62.6	0.0		0.0	89.4	10.6	0.0		69.9	0.0	30.1	0.0		
PHF	0.560	0.881	0.000	0.000	0.902	0.667	0.897	0.888	0.000	0.901	0.000	0.959	0.838	0.000	0.962	0.708	0.000	0.647	0.000	0.777	0.948
Entering Leg	47	303	0	0	350	24	61	142	0	227	0	568	67	0	635	102	0	44	0	146	1358
Exiting Leg	636					0					547					175					1358
Total	986					227					1182					321					2716

PDI File #: **197004 D**
 Location: **N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)**
 Location: **E: School Street W: School Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	1	0	0	1	1	0	0	0	1	0	2	1	0	3	0	0	0	0	0	5
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
4:30 PM	0	1	0	0	1	0	0	3	0	3	0	6	0	0	6	1	0	0	0	1	11
4:45 PM	0	0	0	0	0	0	0	1	0	1	0	5	1	0	6	0	0	0	0	0	7
Total	0	3	0	0	3	1	0	4	0	5	0	14	2	0	16	1	0	0	0	1	25
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	7
5:15 PM	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	0	0	1	0	1	4
5:30 PM	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	3
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	4
Total	0	3	0	0	3	0	2	2	0	4	0	8	1	0	9	1	0	1	0	2	18
Grand Total	0	6	0	0	6	1	2	6	0	9	0	22	3	0	25	2	0	1	0	3	43
Approach %	0.0	100.0	0.0	0.0		11.1	22.2	66.7	0.0		0.0	88.0	12.0	0.0		66.7	0.0	33.3	0.0		
Total %	0.0	14.0	0.0	0.0	14.0	2.3	4.7	14.0	0.0	20.9	0.0	51.2	7.0	0.0	58.1	4.7	0.0	2.3	0.0	7.0	
Exiting Leg Total	24					0					14					5					43
Buses	0	3	0	0	3	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	7
% Buses	0.0	50.0	0.0	0.0	50.0	0.0	0.0	16.7	0.0	11.1	0.0	13.6	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	16.3
Exiting Leg Total	3					0					4					0					7
Single-Unit Trucks	0	2	0	0	2	1	2	4	0	7	0	16	3	0	19	2	0	0	0	2	30
% Single-Unit	0.0	33.3	0.0	0.0	33.3	100.0	100.0	66.7	0.0	77.8	0.0	72.7	100.0	0.0	76.0	100.0	0.0	0.0	0.0	66.7	69.8
Exiting Leg Total	17					0					8					5					30
Articulated Trucks	0	1	0	0	1	0	0	1	0	1	0	3	0	0	3	0	0	1	0	1	6
% Articulated	0.0	16.7	0.0	0.0	16.7	0.0	0.0	16.7	0.0	11.1	0.0	13.6	0.0	0.0	12.0	0.0	0.0	100.0	0.0	33.3	14.0
Exiting Leg Total	4					0					2					0					6

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:30 PM	0	1	0	0	1	0	0	3	0	3	0	6	0	0	6	1	0	0	0	1	11
4:45 PM	0	0	0	0	0	0	0	1	0	1	0	5	1	0	6	0	0	0	0	0	7
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	7
5:15 PM	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	0	0	1	0	1	4
Total Volume	0	3	0	0	3	0	1	5	0	6	0	16	2	0	18	1	0	1	0	2	29
% Approach Total	0.0	100.0	0.0	0.0		0.0	16.7	83.3	0.0		0.0	88.9	11.1	0.0		50.0	0.0	50.0	0.0		
PHF	0.000	0.375	0.000	0.000	0.375	0.000	0.250	0.417	0.000	0.500	0.000	0.667	0.500	0.000	0.750	0.250	0.000	0.250	0.000	0.500	0.659
Buses	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	3
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	16.7	0.0	12.5	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	10.3
Single-Unit Trucks	0	2	0	0	2	0	1	3	0	4	0	12	2	0	14	1	0	0	0	1	21
Single-Unit %	0.0	66.7	0.0	0.0	66.7	0.0	100.0	60.0	0.0	66.7	0.0	75.0	100.0	0.0	77.8	100.0	0.0	0.0	0.0	50.0	72.4
Articulated Trucks	0	1	0	0	1	0	0	1	0	1	0	2	0	0	2	0	0	1	0	1	5
Articulated %	0.0	33.3	0.0	0.0	33.3	0.0	0.0	20.0	0.0	16.7	0.0	12.5	0.0	0.0	11.1	0.0	0.0	100.0	0.0	50.0	17.2
Buses	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	3
Single-Unit Trucks	0	2	0	0	2	0	1	3	0	4	0	12	2	0	14	1	0	0	0	1	21
Articulated Trucks	0	1	0	0	1	0	0	1	0	1	0	2	0	0	2	0	0	1	0	1	5
Total Entering Leg	0	3	0	0	3	0	1	5	0	6	0	16	2	0	18	1	0	1	0	2	29
Buses	2					0					1					0					3
Single-Unit Trucks	12					0					6					3					21
Articulated Trucks	3					0					2					0					5
Total Exiting Leg	17					0					9					3					29

PDI File #: **197004 D**
 Location: **N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)**
 Location: **E: School Street W: School Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Buses

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	2	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	3	0	0	3	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	7
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	42.9	0.0	0.0	42.9	0.0	0.0	14.3	0.0	14.3	0.0	42.9	0.0	0.0	42.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	3					0					4					0					7					

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	0	2	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	
Entering Leg	0	2	0	0	2	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	5
Exiting Leg	2					0					3					0					5					
Total	4					1					5					0					10					

PDI File #: **197004 D**
 Location: **N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)**
 Location: **E: School Street W: School Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

Single-Unit Trucks

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:00 PM	0	0	0	0	0	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	2	0	2	0	2	0	0	2	1	0	0	0	1	5
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	6
Total	0	0	0	0	0	1	0	2	0	3	0	9	2	0	11	1	0	0	0	1	15
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	7
5:15 PM	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2
Total	0	2	0	0	2	0	2	2	0	4	0	7	1	0	8	1	0	0	0	1	15
Grand Total	0	2	0	0	2	1	2	4	0	7	0	16	3	0	19	2	0	0	0	2	30
Approach %	0.0	100.0	0.0	0.0		14.3	28.6	57.1	0.0		0.0	84.2	15.8	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	6.7	0.0	0.0	6.7	3.3	6.7	13.3	0.0	23.3	0.0	53.3	10.0	0.0	63.3	6.7	0.0	0.0	0.0	6.7	
Exiting Leg Total	17					0					8					5					30

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
4:30 PM	0	0	0	0	0	0	0	2	0	2	0	2	0	0	2	1	0	0	0	1	5
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	6
5:00 PM	0	2	0	0	2	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	7
5:15 PM	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	3
Total Volume	0	2	0	0	2	0	1	3	0	4	0	12	2	0	14	1	0	0	0	1	21
% Approach Total	0.0	100.0	0.0	0.0		0.0	25.0	75.0	0.0		0.0	85.7	14.3	0.0		100.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.375	0.000	0.500	0.000	0.600	0.500	0.000	0.583	0.250	0.000	0.000	0.000	0.250	0.750
Entering Leg	0	2	0	0	2	0	1	3	0	4	0	12	2	0	14	1	0	0	0	1	21
Exiting Leg	12					0					6					3					21
Total	14					4					20					4					42

PDI File #: **197004 D**
 Location: **N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)**
 Location: **E: School Street W: School Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

Articulated Trucks

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	1	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	5
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Grand Total	0	1	0	0	1	0	0	1	0	1	0	3	0	0	3	0	0	1	0	1	0	0	0	0	0	6
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	16.7	0.0	0.0	16.7	0.0	0.0	16.7	0.0	16.7	0.0	50.0	0.0	0.0	50.0	0.0	0.0	16.7	0.0	16.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total						4					0					2					0					6

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total					
	from North					from East					from South					from West										
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	1	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	0	1	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	5
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.375	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.313
Entering Leg	0	1	0	0	1	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	5
Exiting Leg						3					0					2					0					5
Total						4					1					5					0					10

PDI File #: **197004 D**
 Location: **N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)**
 Location: **E: School Street W: School Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, May 30, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



Bicycles (on Roadway and Crosswalks)

	Rantoul Street (Route 1A)							School Street							Rantoule Street (Route 1A)							School Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1		
Total	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	1	0	2	0	0	0	0	0	0	3		
Grand Total	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	1	0	3	0	0	0	0	0	0	0	4		
Approach %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0	25.0	0.0	50.0	0.0	0.0	25.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	0.0		
Exiting Leg Total	2							0							2							0							4

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoul Street (Route 1A)							School Street							Rantoule Street (Route 1A)							School Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1		
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1		
Total Volume	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	2	0	0	0	0	0	0	3		
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.750		
Entering Leg	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	2	0	0	0	0	0	0	0	3		
Exiting Leg	1							0							2							0							3
Total	1							1							4							0							6

PDI File #: 197004 D
 Location: N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)
 Location: E: School Street W: School Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Thursday, May 30, 2019
 Start Time: 4:00 PM
 End Time: 6:00 PM
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Pedestrians

	Rantoul Street (Route 1A)								School Street								Rantoule Street (Route 1A)								School Street								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
4:00 PM	0	0	0	0	0	1	1	0	0	0	0	2	0	2	0	0	0	0	1	1	2	0	0	0	0	3	1	4	9				
4:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4				
4:30 PM	0	0	0	0	3	2	5	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	5	3	8	14				
4:45 PM	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	1	1	2	6				
Total	0	0	0	0	4	5	9	0	0	0	0	2	4	6	0	0	0	0	2	1	3	0	0	0	0	9	6	15	33				
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	1	1	4				
5:15 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	1	6	7	14				
5:30 PM	0	0	0	0	1	3	4	0	0	0	0	0	2	2	0	0	0	0	3	0	3	0	0	0	0	3	8	11	20				
5:45 PM	0	0	0	0	0	6	6	0	0	0	0	3	6	9	0	0	0	0	5	0	5	0	0	0	0	0	10	10	30				
Total	0	0	0	0	2	11	13	0	0	0	0	3	9	12	0	0	0	0	14	0	14	0	0	0	0	4	25	29	68				
Grand Total	0	0	0	0	6	16	22	0	0	0	0	5	13	18	0	0	0	0	16	1	17	0	0	0	0	13	31	44	101				
Approach %	0	0	0	0	27.3	72.7		0	0	0	0	27.8	72.2		0	0	0	0	94.1	5.88		0	0	0	0	29.5	70.5						
Total %	0	0	0	0	5.94	15.8	21.8	0	0	0	0	4.95	12.9	17.8	0	0	0	0	15.8	0.99	16.8	0	0	0	0	12.9	30.7	43.6					
Exiting Leg Total	22							18							17							44							101				

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Rantoul Street (Route 1A)								School Street								Rantoule Street (Route 1A)								School Street								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total		Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total		Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
5:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	1	1	4				
5:15 PM	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	1	6	7	14				
5:30 PM	0	0	0	0	1	3	4	0	0	0	0	0	2	2	0	0	0	0	3	0	3	0	0	0	0	3	8	11	20				
5:45 PM	0	0	0	0	0	6	6	0	0	0	0	3	6	9	0	0	0	0	5	0	5	0	0	0	0	0	10	10	30				
Total Volume	0	0	0	0	2	11	13	0	0	0	0	3	9	12	0	0	0	0	14	0	14	0	0	0	0	4	25	29	68				
% Approach Total	0.0	0.0	0.0	0.0	15.4	84.6		0.0	0.0	0.0	0.0	25.0	75.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	13.8	86.2						
PHF	0.000	0.000	0.000	0.000	0.500	0.458	0.542	0.000	0.000	0.000	0.000	0.250	0.375	0.333	0.000	0.000	0.000	0.000	0.700	0.000	0.700	0.000	0.000	0.000	0.000	0.333	0.625	0.659	0.567				
Entering Leg	0	0	0	0	2	11	13	0	0	0	0	3	9	12	0	0	0	0	14	0	14	0	0	0	0	4	25	29	68				
Exiting Leg	13							12							14							29							68				
Total	26							24							28							58							136				

PDI File #: **197004 DD**
 Location: **N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)**
 Location: **E: School Street W: School Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Cars and Heavy Vehicles (Combined)

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	5	84	0	0	89	3	8	0	0	11	0	82	22	0	104	22	0	9	0	31	235
11:15 AM	2	83	0	0	85	5	6	0	0	11	0	101	22	0	123	19	0	10	0	29	248
11:30 AM	6	97	0	0	103	2	15	0	0	17	0	96	11	0	107	28	0	10	0	38	265
11:45 AM	6	85	0	0	91	5	9	0	0	14	0	96	24	0	120	15	0	8	0	23	248
Total	19	349	0	0	368	15	38	0	0	53	0	375	79	0	454	84	0	37	0	121	996
12:00 PM	5	85	0	0	90	8	6	0	0	14	0	94	14	0	108	31	0	11	0	42	254
12:15 PM	9	108	0	0	117	6	13	0	0	19	0	80	21	0	101	16	0	9	0	25	262
12:30 PM	10	80	0	0	90	9	10	0	0	19	0	100	18	0	118	28	0	3	0	31	258
12:45 PM	3	97	0	0	100	10	9	0	0	19	0	87	14	0	101	26	0	6	0	32	252
Total	27	370	0	0	397	33	38	0	0	71	0	361	67	0	428	101	0	29	0	130	1026
Grand Total	46	719	0	0	765	48	76	0	0	124	0	736	146	0	882	185	0	66	0	251	2022
Approach %	6.0	94.0	0.0	0.0		38.7	61.3	0.0	0.0		0.0	83.4	16.6	0.0		73.7	0.0	26.3	0.0		
Total %	2.3	35.6	0.0	0.0	37.8	2.4	3.8	0.0	0.0	6.1	0.0	36.4	7.2	0.0	43.6	9.1	0.0	3.3	0.0	12.4	
Exiting Leg Total	850					0					904					268					2022
Cars	45	702	0	0	747	48	76	0	0	124	0	719	143	0	862	180	0	65	0	245	1978
% Cars	97.8	97.6	0.0	0.0	97.6	100.0	100.0	0.0	0.0	100.0	0.0	97.7	97.9	0.0	97.7	97.3	0.0	98.5	0.0	97.6	97.8
Exiting Leg Total	832					0					882					264					1978
Heavy Vehicles	1	17	0	0	18	0	0	0	0	0	0	17	3	0	20	5	0	1	0	6	44
% Heavy Vehicles	2.2	2.4	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.1	0.0	2.3	2.7	0.0	1.5	0.0	2.4	2.2
Exiting Leg Total	18					0					22					4					44

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:30 AM	6	97	0	0	103	2	15	0	0	17	0	96	11	0	107	28	0	10	0	38	265
11:45 AM	6	85	0	0	91	5	9	0	0	14	0	96	24	0	120	15	0	8	0	23	248
12:00 PM	5	85	0	0	90	8	6	0	0	14	0	94	14	0	108	31	0	11	0	42	254
12:15 PM	9	108	0	0	117	6	13	0	0	19	0	80	21	0	101	16	0	9	0	25	262
Total Volume	26	375	0	0	401	21	43	0	0	64	0	366	70	0	436	90	0	38	0	128	1029
% Approach Total	6.5	93.5	0.0	0.0		32.8	67.2	0.0	0.0		0.0	83.9	16.1	0.0		70.3	0.0	29.7	0.0		
PHF	0.722	0.868	0.000	0.000	0.857	0.656	0.717	0.000	0.000	0.842	0.000	0.953	0.729	0.000	0.908	0.726	0.000	0.864	0.000	0.762	0.971
Cars	25	370	0	0	395	21	43	0	0	64	0	356	68	0	424	86	0	38	0	124	1007
Cars %	96.2	98.7	0.0	0.0	98.5	100.0	100.0	0.0	0.0	100.0	0.0	97.3	97.1	0.0	97.2	95.6	0.0	100.0	0.0	96.9	97.9
Heavy Vehicles	1	5	0	0	6	0	0	0	0	0	0	10	2	0	12	4	0	0	0	4	22
Heavy Vehicles %	3.8	1.3	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.9	0.0	2.8	4.4	0.0	0.0	0.0	3.1	2.1
Cars Enter Leg	25	370	0	0	395	21	43	0	0	64	0	356	68	0	424	86	0	38	0	124	1007
Heavy Enter Leg	1	5	0	0	6	0	0	0	0	0	0	10	2	0	12	4	0	0	0	4	22
Total Entering Leg	26	375	0	0	401	21	43	0	0	64	0	366	70	0	436	90	0	38	0	128	1029
Cars Exiting Leg	415					0					456					136					1007
Heavy Exiting Leg	10					0					9					3					22
Total Exiting Leg	425					0					465					139					1029

PDI File #: **197004 DD**
 Location: **N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)**
 Location: **E: School Street W: School Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Cars

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	5	82	0	0	87	3	8	0	0	11	0	80	22	0	102	21	0	9	0	30	230
11:15 AM	2	79	0	0	81	5	6	0	0	11	0	101	22	0	123	19	0	9	0	28	243
11:30 AM	6	97	0	0	103	2	15	0	0	17	0	94	10	0	104	27	0	10	0	37	261
11:45 AM	6	84	0	0	90	5	9	0	0	14	0	94	23	0	117	15	0	8	0	23	244
Total	19	342	0	0	361	15	38	0	0	53	0	369	77	0	446	82	0	36	0	118	978
12:00 PM	5	83	0	0	88	8	6	0	0	14	0	89	14	0	103	29	0	11	0	40	245
12:15 PM	8	106	0	0	114	6	13	0	0	19	0	79	21	0	100	15	0	9	0	24	257
12:30 PM	10	75	0	0	85	9	10	0	0	19	0	96	17	0	113	28	0	3	0	31	248
12:45 PM	3	96	0	0	99	10	9	0	0	19	0	86	14	0	100	26	0	6	0	32	250
Total	26	360	0	0	386	33	38	0	0	71	0	350	66	0	416	98	0	29	0	127	1000
Grand Total	45	702	0	0	747	48	76	0	0	124	0	719	143	0	862	180	0	65	0	245	1978
Approach %	6.0	94.0	0.0	0.0		38.7	61.3	0.0	0.0		0.0	83.4	16.6	0.0		73.5	0.0	26.5	0.0		
Total %	2.3	35.5	0.0	0.0	37.8	2.4	3.8	0.0	0.0	6.3	0.0	36.3	7.2	0.0	43.6	9.1	0.0	3.3	0.0	12.4	
Exiting Leg Total	832					0					882					264					1978

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:30 AM	6	97	0	0	103	2	15	0	0	17	0	94	10	0	104	27	0	10	0	37	261
11:45 AM	6	84	0	0	90	5	9	0	0	14	0	94	23	0	117	15	0	8	0	23	244
12:00 PM	5	83	0	0	88	8	6	0	0	14	0	89	14	0	103	29	0	11	0	40	245
12:15 PM	8	106	0	0	114	6	13	0	0	19	0	79	21	0	100	15	0	9	0	24	257
Total Volume	25	370	0	0	395	21	43	0	0	64	0	356	68	0	424	86	0	38	0	124	1007
% Approach Total	6.3	93.7	0.0	0.0		32.8	67.2	0.0	0.0		0.0	84.0	16.0	0.0		69.4	0.0	30.6	0.0		
PHF	0.781	0.873	0.000	0.000	0.866	0.656	0.717	0.000	0.000	0.842	0.000	0.947	0.739	0.000	0.906	0.741	0.000	0.864	0.000	0.775	0.965
Entering Leg	25	370	0	0	395	21	43	0	0	64	0	356	68	0	424	86	0	38	0	124	1007
Exiting Leg	415					0					456					136					1007
Total	810					64					880					260					2014

PDI File #: 197004 DD
 Location: N: Rantoul Street (Route 1A) S: Rantoul Street (Route 1A)
 Location: E: School Street W: School Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 1, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Rantoul Street (Route 1A)					School Street					Rantoul Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	5
11:15 AM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	1	0	0	0	1	4
11:45 AM	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	4
Total	0	7	0	0	7	0	0	0	0	0	0	6	2	0	8	2	0	1	0	3	18
12:00 PM	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	2	0	0	0	2	9
12:15 PM	1	2	0	0	3	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	5
12:30 PM	0	5	0	0	5	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	10
12:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	1	10	0	0	11	0	0	0	0	0	0	11	1	0	12	3	0	0	0	3	26
Grand Total	1	17	0	0	18	0	0	0	0	0	0	17	3	0	20	5	0	1	0	6	44
Approach %	5.6	94.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	85.0	15.0	0.0		83.3	0.0	16.7	0.0		
Total %	2.3	38.6	0.0	0.0	40.9	0.0	0.0	0.0	0.0	0.0	0.0	38.6	6.8	0.0	45.5	11.4	0.0	2.3	0.0	13.6	
Exiting Leg Total	18					0					22					4					44
Buses	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Buses	0.0	11.8	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
Exiting Leg Total	0					0					2					0					2
Single-Unit Trucks	1	13	0	0	14	0	0	0	0	0	0	17	3	0	20	4	0	1	0	5	39
% Single-Unit	100.0	76.5	0.0	0.0	77.8	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	100.0	80.0	0.0	100.0	0.0	83.3	88.6
Exiting Leg Total	18					0					17					4					39
Articulated Trucks	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
% Articulated	0.0	11.8	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	16.7	6.8
Exiting Leg Total	0					0					3					0					3

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoul Street (Route 1A)					School Street					Rantoul Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:45 AM	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	4
12:00 PM	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	2	0	0	0	2	9
12:15 PM	1	2	0	0	3	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	5
12:30 PM	0	5	0	0	5	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	10
Total Volume	1	10	0	0	11	0	0	0	0	0	0	12	2	0	14	3	0	0	0	3	28
% Approach Total	9.1	90.9	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	85.7	14.3	0.0		100.0	0.0	0.0	0.0		
PHF	0.250	0.500	0.000	0.000	0.550	0.000	0.000	0.000	0.000	0.000	0.000	0.600	0.500	0.000	0.700	0.375	0.000	0.000	0.000	0.375	0.700
Buses	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Buses %	0.0	20.0	0.0	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
Single-Unit Trucks	1	6	0	0	7	0	0	0	0	0	0	12	2	0	14	3	0	0	0	3	24
Single-Unit %	100.0	60.0	0.0	0.0	63.6	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	100.0	100.0	0.0	0.0	0.0	100.0	85.7
Articulated Trucks	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Articulated %	0.0	20.0	0.0	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
Buses	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Single-Unit Trucks	1	6	0	0	7	0	0	0	0	0	0	12	2	0	14	3	0	0	0	3	24
Articulated Trucks	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Entering Leg	1	10	0	0	11	0	0	0	0	0	0	12	2	0	14	3	0	0	0	3	28
Buses	0					0					2					0					2
Single-Unit Trucks	12					0					9					3					24
Articulated Trucks	0					0					2					0					2
Total Exiting Leg	12					0					13					3					28

PDI File #: **197004 DD**
 Location: **N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)**
 Location: **E: School Street W: School Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Buses

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	0					0					2					0					2

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Exiting Leg	0					0					2					0					2
Total	2					0					2					0					4

PDI File #: **197004 DD**
 Location: **N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)**
 Location: **E: School Street W: School Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Single-Unit Trucks

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	5
11:15 AM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	3
11:45 AM	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	4
Total	0	7	0	0	7	0	0	0	0	0	0	6	2	0	8	1	0	1	0	2	17
12:00 PM	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	2	0	0	0	2	8
12:15 PM	1	2	0	0	3	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	5
12:30 PM	0	2	0	0	2	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	7
12:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	1	6	0	0	7	0	0	0	0	0	0	11	1	0	12	3	0	0	0	3	22
Grand Total	1	13	0	0	14	0	0	0	0	0	0	17	3	0	20	4	0	1	0	5	39
Approach %	7.1	92.9	0.0	0.0		0.0	0.0	0.0	0.0		0.0	85.0	15.0	0.0		80.0	0.0	20.0	0.0		
Total %	2.6	33.3	0.0	0.0	35.9	0.0	0.0	0.0	0.0	0.0	0.0	43.6	7.7	0.0	51.3	10.3	0.0	2.6	0.0	12.8	
Exiting Leg Total	18					0					17					4					39

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:45 AM	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	4
12:00 PM	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	2	0	0	0	2	8
12:15 PM	1	2	0	0	3	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	5
12:30 PM	0	2	0	0	2	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	7
Total Volume	1	6	0	0	7	0	0	0	0	0	0	12	2	0	14	3	0	0	0	3	24
% Approach Total	14.3	85.7	0.0	0.0		0.0	0.0	0.0	0.0		0.0	85.7	14.3	0.0		100.0	0.0	0.0	0.0		
PHF	0.250	0.750	0.000	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.600	0.500	0.000	0.700	0.375	0.000	0.000	0.000	0.375	0.750
Entering Leg	1	6	0	0	7	0	0	0	0	0	0	12	2	0	14	3	0	0	0	3	24
Exiting Leg	12					0					9					3					24
Total	19					0					23					6					48

PDI File #: **197004 DD**
 Location: **N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)**
 Location: **E: School Street W: School Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 1, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Articulated Trucks

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
12:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
Approach %	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	0.0	33.3	
Exiting Leg Total	0					0					3					0					3

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoul Street (Route 1A)					School Street					Rantoule Street (Route 1A)					School Street					Total
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
% Approach Total	0.0	100.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.500
Entering Leg	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Exiting Leg	0					0					2					0					2
Total	1					0					2					1					4

PDI File #: 197004 DD
 Location: N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)
 Location: E: School Street W: School Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 1, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



Bicycles (on Roadway and Crosswalks)

	Rantoul Street (Route 1A)							School Street							Rantoule Street (Route 1A)							School Street							Total								
	from North							from East							from South							from West															
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total									
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
12:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
Grand Total	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
Approach %	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
Total %	0.0	85.7	0.0	0.0	0.0	0.0	85.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Exiting Leg Total								1							0							6							0	7							

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoul Street (Route 1A)							School Street							Rantoule Street (Route 1A)							School Street							Total								
	from North							from East							from South							from West															
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total									
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
12:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
% Approach Total	0.0	100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0						
PHF	0.000	0.375	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375			
Entering Leg	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Exiting Leg								0							6							0	6														
Total								6							0							6							0	12							

PDI File #: 197004 DD
 Location: N: Rantoul Street (Route 1A) S: Rantoule Street (Route 1A)
 Location: E: School Street W: School Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 1, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



Pedestrians

	Rantoul Street (Route 1A)							School Street							Rantoule Street (Route 1A)							School Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	2	1	3	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	1	5			
11:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	2	2	0	0	0	0	0	2	2	0	0	0	1	1	6		
11:30 AM	0	0	0	0	0	1	1	0	0	0	0	2	0	2	0	0	0	0	2	0	2	0	0	0	1	1	6		
11:45 AM	0	0	0	0	2	2	4	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	2	2	8			
Total	0	0	0	0	5	4	9	0	0	0	0	2	5	7	0	0	0	0	2	2	4	0	0	0	1	4	5	25	
12:00 PM	0	0	0	0	1	1	2	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	6		
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	4	6		
12:30 PM	0	0	0	0	1	2	3	0	0	0	0	3	0	3	0	0	0	0	3	0	3	0	0	0	1	0	1	7	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	1	3		
Total	0	0	0	0	2	3	5	0	0	0	0	7	2	9	0	0	0	0	3	1	4	0	0	0	0	3	5	8	26
Grand Total	0	0	0	0	7	7	14	0	0	0	0	9	7	16	0	0	0	0	5	3	8	0	0	0	0	4	9	13	51
Approach %	0	0	0	0	50	50		0	0	0	0	56.3	43.8		0	0	0	0	62.5	37.5		0	0	0	0	30.8	69.2		
Total %	0	0	0	0	13.7	13.7	27.5	0	0	0	0	17.6	13.7	31.4	0	0	0	0	9.8	5.88	15.7	0	0	0	0	7.84	17.6	25.5	
Exiting Leg Total	14							16							8							13							51

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

	Rantoul Street (Route 1A)							School Street							Rantoule Street (Route 1A)							School Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:45 AM	0	0	0	0	2	2	4	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	2	2	8			
12:00 PM	0	0	0	0	1	1	2	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	6		
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	4	6		
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	4	6		
Total Volume	0	0	0	0	3	3	6	0	0	0	0	3	3	6	0	0	0	0	0	2	2	0	0	0	0	4	10	14	28
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	28.6	71.4		
PHF	0.000	0.000	0.000	0.000	0.375	0.375	0.375	0.000	0.000	0.000	0.000	0.250	0.375	0.375	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.500	0.625	0.583	0.875
Entering Leg	0	0	0	0	3	3	6	0	0	0	0	3	3	6	0	0	0	0	0	2	2	0	0	0	0	4	10	14	28
Exiting Leg	6							6							2							14							28
Total	12							12							4							28							56

PDI File #: **197004 E**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **W: Congress Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, June 6, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Cars and Heavy Vehicles (Combined)

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	1	266	0	267	326	0	0	326	32	0	0	32	625
4:15 PM	4	322	0	326	296	0	0	296	30	0	0	30	652
4:30 PM	1	301	0	302	323	0	0	323	22	0	0	22	647
4:45 PM	8	308	0	316	308	0	0	308	29	0	0	29	653
Total	14	1197	0	1211	1253	0	0	1253	113	0	0	113	2577
5:00 PM	4	329	0	333	318	0	0	318	36	0	0	36	687
5:15 PM	5	366	0	371	341	0	0	341	26	0	0	26	738
5:30 PM	6	298	0	304	295	0	0	295	20	0	0	20	619
5:45 PM	6	299	0	305	253	0	0	253	21	0	0	21	579
Total	21	1292	0	1313	1207	0	0	1207	103	0	0	103	2623
Grand Total	35	2489	0	2524	2460	0	0	2460	216	0	0	216	5200
Approach %	1.4	98.6	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.7	47.9	0.0	48.5	47.3	0.0	0.0	47.3	4.2	0.0	0.0	4.2	
Exiting Leg Total				2460				2705				35	5200
Cars	35	2455	0	2490	2421	0	0	2421	216	0	0	216	5127
% Cars	100.0	98.6	0.0	98.7	98.4	0.0	0.0	98.4	100.0	0.0	0.0	100.0	98.6
Exiting Leg Total				2421				2671				35	5127
Heavy Vehicles	0	34	0	34	39	0	0	39	0	0	0	0	73
% Heavy Vehicles	0.0	1.4	0.0	1.3	1.6	0.0	0.0	1.6	0.0	0.0	0.0	0.0	1.4
Exiting Leg Total				39				34				0	73

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:30 PM	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:30 PM	1	301	0	302	323	0	0	323	22	0	0	22	647
4:45 PM	8	308	0	316	308	0	0	308	29	0	0	29	653
5:00 PM	4	329	0	333	318	0	0	318	36	0	0	36	687
5:15 PM	5	366	0	371	341	0	0	341	26	0	0	26	738
Total Volume	18	1304	0	1322	1290	0	0	1290	113	0	0	113	2725
% Approach Total	1.4	98.6	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.563	0.891	0.000	0.891	0.946	0.000	0.000	0.946	0.785	0.000	0.000	0.785	0.923
Cars	18	1288	0	1306	1271	0	0	1271	113	0	0	113	2690
Cars %	100.0	98.8	0.0	98.8	98.5	0.0	0.0	98.5	100.0	0.0	0.0	100.0	98.7
Heavy Vehicles	0	16	0	16	19	0	0	19	0	0	0	0	35
Heavy Vehicles %	0.0	1.2	0.0	1.2	1.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0	1.3
Cars Enter Leg	18	1288	0	1306	1271	0	0	1271	113	0	0	113	2690
Heavy Enter Leg	0	16	0	16	19	0	0	19	0	0	0	0	35
Total Entering Leg	18	1304	0	1322	1290	0	0	1290	113	0	0	113	2725
Cars Exiting Leg				1271				1401				18	2690
Heavy Exiting Leg				19				16				0	35
Total Exiting Leg				1290				1417				18	2725

PDI File #: **197004 E**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **W: Congress Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, June 6, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

Cars

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	1	258	0	259	317	0	0	317	32	0	0	32	608
4:15 PM	4	321	0	325	289	0	0	289	30	0	0	30	644
4:30 PM	1	295	0	296	320	0	0	320	22	0	0	22	638
4:45 PM	8	304	0	312	302	0	0	302	29	0	0	29	643
Total	14	1178	0	1192	1228	0	0	1228	113	0	0	113	2533
5:00 PM	4	326	0	330	313	0	0	313	36	0	0	36	679
5:15 PM	5	363	0	368	336	0	0	336	26	0	0	26	730
5:30 PM	6	293	0	299	294	0	0	294	20	0	0	20	613
5:45 PM	6	295	0	301	250	0	0	250	21	0	0	21	572
Total	21	1277	0	1298	1193	0	0	1193	103	0	0	103	2594
Grand Total	35	2455	0	2490	2421	0	0	2421	216	0	0	216	5127
Approach %	1.4	98.6	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
Total %	0.7	47.9	0.0	48.6	47.2	0.0	0.0	47.2	4.2	0.0	0.0	4.2	
Exiting Leg Total				2421				2671				35	5127

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:30 PM	1	295	0	296	320	0	0	320	22	0	0	22	638
4:45 PM	8	304	0	312	302	0	0	302	29	0	0	29	643
5:00 PM	4	326	0	330	313	0	0	313	36	0	0	36	679
5:15 PM	5	363	0	368	336	0	0	336	26	0	0	26	730
Total Volume	18	1288	0	1306	1271	0	0	1271	113	0	0	113	2690
% Approach Total	1.4	98.6	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.563	0.887	0.000	0.887	0.946	0.000	0.000	0.946	0.785	0.000	0.000	0.785	0.921
Entering Leg	18	1288	0	1306	1271	0	0	1271	113	0	0	113	2690
Exiting Leg				1271				1401				18	2690
Total				2577				2672				131	5380

PDI File #: **197004 E**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **W: Congress Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, June 6, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



Class: Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	8	0	8	9	0	0	9	0	0	0	0	17
4:15 PM	0	1	0	1	7	0	0	7	0	0	0	0	8
4:30 PM	0	6	0	6	3	0	0	3	0	0	0	0	9
4:45 PM	0	4	0	4	6	0	0	6	0	0	0	0	10
Total	0	19	0	19	25	0	0	25	0	0	0	0	44
5:00 PM	0	3	0	3	5	0	0	5	0	0	0	0	8
5:15 PM	0	3	0	3	5	0	0	5	0	0	0	0	8
5:30 PM	0	5	0	5	1	0	0	1	0	0	0	0	6
5:45 PM	0	4	0	4	3	0	0	3	0	0	0	0	7
Total	0	15	0	15	14	0	0	14	0	0	0	0	29
Grand Total	0	34	0	34	39	0	0	39	0	0	0	0	73
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	0.0	46.6	0.0	46.6	53.4	0.0	0.0	53.4	0.0	0.0	0.0	0.0	
Exiting Leg Total				39				34					73
Buses	0	9	0	9	8	0	0	8	0	0	0	0	17
% Buses	0.0	26.5	0.0	26.5	20.5	0.0	0.0	20.5	0.0	0.0	0.0	0.0	23.3
Exiting Leg Total				8				9					17
Single-Unit Trucks	0	22	0	22	29	0	0	29	0	0	0	0	51
% Single-Unit	0.0	64.7	0.0	64.7	74.4	0.0	0.0	74.4	0.0	0.0	0.0	0.0	69.9
Exiting Leg Total				29				22					51
Articulated Trucks	0	3	0	3	2	0	0	2	0	0	0	0	5
% Articulated	0.0	8.8	0.0	8.8	5.1	0.0	0.0	5.1	0.0	0.0	0.0	0.0	6.8
Exiting Leg Total				2				3					5

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	8	0	8	9	0	0	9	0	0	0	0	17
4:15 PM	0	1	0	1	7	0	0	7	0	0	0	0	8
4:30 PM	0	6	0	6	3	0	0	3	0	0	0	0	9
4:45 PM	0	4	0	4	6	0	0	6	0	0	0	0	10
Total Volume	0	19	0	19	25	0	0	25	0	0	0	0	44
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.594	0.000	0.594	0.694	0.000	0.000	0.694	0.000	0.000	0.000	0.000	0.647
Buses	0	7	0	7	6	0	0	6	0	0	0	0	13
Buses %	0.0	36.8	0.0	36.8	24.0	0.0	0.0	24.0	0.0	0.0	0.0	0.0	29.5
Single-Unit Trucks	0	11	0	11	18	0	0	18	0	0	0	0	29
Single-Unit %	0.0	57.9	0.0	57.9	72.0	0.0	0.0	72.0	0.0	0.0	0.0	0.0	65.9
Articulated Trucks	0	1	0	1	1	0	0	1	0	0	0	0	2
Articulated %	0.0	5.3	0.0	5.3	4.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	4.5
Buses	0	7	0	7	6	0	0	6	0	0	0	0	13
Single-Unit Trucks	0	11	0	11	18	0	0	18	0	0	0	0	29
Articulated Trucks	0	1	0	1	1	0	0	1	0	0	0	0	2
Total Entering Leg	0	19	0	19	25	0	0	25	0	0	0	0	44
Buses				6				7					13
Single-Unit Trucks				18				11					29
Articulated Trucks				1				1					2
Total Exiting Leg				25				19					44

PDI File #: **197004 E**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **W: Congress Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, June 6, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

Buses

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
4:00 PM	0	4	0	4	4	0	0	4	0	0	0	0	8	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	2	
4:45 PM	0	1	0	1	2	0	0	2	0	0	0	0	3	
Total	0	7	0	7	6	0	0	6	0	0	0	0	13	
5:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1	
5:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2	
Total	0	2	0	2	2	0	0	2	0	0	0	0	4	
Grand Total	0	9	0	9	8	0	0	8	0	0	0	0	17	
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0			
Total %	0.0	52.9	0.0	52.9	47.1	0.0	0.0	47.1	0.0	0.0	0.0	0.0		
Exiting Leg Total				8				9					0	17

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	4	0	4	4	0	0	4	0	0	0	0	8
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
Total Volume	0	7	0	7	6	0	0	6	0	0	0	0	13
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.438	0.000	0.438	0.375	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.406
Entering Leg	0	7	0	7	6	0	0	6	0	0	0	0	13
Exiting Leg				6				7					13
Total				13				13					26

PDI File #: **197004 E**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **W: Congress Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, June 6, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Single-Unit Trucks

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
4:00 PM	0	4	0	4	5	0	0	5	0	0	0	0	9	
4:15 PM	0	1	0	1	6	0	0	6	0	0	0	0	7	
4:30 PM	0	3	0	3	3	0	0	3	0	0	0	0	6	
4:45 PM	0	3	0	3	4	0	0	4	0	0	0	0	7	
Total	0	11	0	11	18	0	0	18	0	0	0	0	29	
5:00 PM	0	1	0	1	3	0	0	3	0	0	0	0	4	
5:15 PM	0	3	0	3	5	0	0	5	0	0	0	0	8	
5:30 PM	0	4	0	4	1	0	0	1	0	0	0	0	5	
5:45 PM	0	3	0	3	2	0	0	2	0	0	0	0	5	
Total	0	11	0	11	11	0	0	11	0	0	0	0	22	
Grand Total	0	22	0	22	29	0	0	29	0	0	0	0	51	
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0			
Total %	0.0	43.1	0.0	43.1	56.9	0.0	0.0	56.9	0.0	0.0	0.0	0.0		
Exiting Leg Total				29				22					0	51

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
4:00 PM	0	4	0	4	5	0	0	5	0	0	0	0	9
4:15 PM	0	1	0	1	6	0	0	6	0	0	0	0	7
4:30 PM	0	3	0	3	3	0	0	3	0	0	0	0	6
4:45 PM	0	3	0	3	4	0	0	4	0	0	0	0	7
Total Volume	0	11	0	11	18	0	0	18	0	0	0	0	29
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.688	0.000	0.688	0.750	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.806
Entering Leg	0	11	0	11	18	0	0	18	0	0	0	0	29
Exiting Leg				18				11				0	29
Total				29				29				0	58

PDI File #: **197004 E**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **W: Congress Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Thursday, June 6, 2019**
 Start Time: **4:00 PM**
 End Time: **6:00 PM**



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Articulated Trucks

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	1	
4:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	1	0	1	1	0	0	1	0	0	0	0	2	
5:00 PM	0	2	0	2	1	0	0	1	0	0	0	0	3	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	2	0	2	1	0	0	1	0	0	0	0	3	
Grand Total	0	3	0	3	2	0	0	2	0	0	0	0	5	
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0			
Total %	0.0	60.0	0.0	60.0	40.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0		
Exiting Leg Total				2				3					0	5

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:15 PM	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
4:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	1	
4:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	2	0	2	1	0	0	1	0	0	0	0	3	
Total Volume	0	3	0	3	2	0	0	2	0	0	0	0	5	
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0			
PHF	0.000	0.375	0.000	0.375	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.417	
Entering Leg	0	3	0	3	2	0	0	2	0	0	0	0	5	
Exiting Leg				2				3					0	5
Total				5				5					0	10

PDI File #: 197004 E
 Location: N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)
 Location: W: Congress Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Thursday, June 6, 2019
 Start Time: 4:00 PM
 End Time: 6:00 PM
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Cabot Street (Route 1A)						Cabot Street (Route 1A)						Congress Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	2
Total	0	1	0	0	0	1	2	0	0	0	0	2	0	0	0	0	0	0	3
Grand Total	0	3	0	0	0	3	2	0	0	0	0	2	0	0	0	0	0	0	5
Approach %	0.0	100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
Total %	0.0	60.0	0.0	0.0	0.0	60.0	40.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total	2						3						0						5

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

5:00 PM	Cabot Street (Route 1A)						Cabot Street (Route 1A)						Congress Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	2
Total Volume	0	1	0	0	0	1	2	0	0	0	0	2	0	0	0	0	0	0	3
% Approach Total	0.0	100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.250	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	1	0	0	0	1	2	0	0	0	0	2	0	0	0	0	0	0	3
Exiting Leg	2						1						0						3
Total	3						3						0						6

PDI File #: 197004 E
 Location: N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)
 Location: W: Congress Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Thursday, June 6, 2019
 Start Time: 4:00 PM
 End Time: 6:00 PM
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Pedestrians

	Cabot Street (Route 1A)						Cabot Street (Route 1A)						Congress Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 04:00 PM to 06:00 PM begins at:

4:00 PM	Cabot Street (Route 1A)						Cabot Street (Route 1A)						Congress Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **197004 E**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **W: Congress Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 8, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Cars and Heavy Vehicles (Combined)

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	6	229	0	235	223	0	0	223	27	0	0	27	485
11:15 AM	8	204	0	212	228	0	0	228	21	0	0	21	461
11:30 AM	9	201	0	210	219	0	0	219	22	0	0	22	451
11:45 AM	6	219	0	225	223	0	0	223	19	0	0	19	467
Total	29	853	0	882	893	0	0	893	89	0	0	89	1864
12:00 PM	0	237	0	237	215	0	0	215	23	0	0	23	475
12:15 PM	2	261	0	263	225	0	0	225	30	0	0	30	518
12:30 PM	4	255	0	259	260	0	0	260	17	0	0	17	536
12:45 PM	6	241	0	247	211	0	0	211	15	0	0	15	473
Total	12	994	0	1006	911	0	0	911	85	0	0	85	2002
Grand Total	41	1847	0	1888	1804	0	0	1804	174	0	0	174	3866
Approach %	2.2	97.8	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
Total %	1.1	47.8	0.0	48.8	46.7	0.0	0.0	46.7	4.5	0.0	0.0	4.5	
Exiting Leg Total				1804				2021				41	3866
Cars	39	1823	0	1862	1774	0	0	1774	172	0	0	172	3808
% Cars	95.1	98.7	0.0	98.6	98.3	0.0	0.0	98.3	98.9	0.0	0.0	98.9	98.5
Exiting Leg Total				1774				1995				39	3808
Heavy Vehicles	2	24	0	26	30	0	0	30	2	0	0	2	58
% Heavy Vehicles	4.9	1.3	0.0	1.4	1.7	0.0	0.0	1.7	1.1	0.0	0.0	1.1	1.5
Exiting Leg Total				30				26				2	58

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
12:00 PM	0	237	0	237	215	0	0	215	23	0	0	23	475
12:15 PM	2	261	0	263	225	0	0	225	30	0	0	30	518
12:30 PM	4	255	0	259	260	0	0	260	17	0	0	17	536
12:45 PM	6	241	0	247	211	0	0	211	15	0	0	15	473
Total Volume	12	994	0	1006	911	0	0	911	85	0	0	85	2002
% Approach Total	1.2	98.8	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.500	0.952	0.000	0.956	0.876	0.000	0.000	0.876	0.708	0.000	0.000	0.708	0.934
Cars	12	982	0	994	902	0	0	902	85	0	0	85	1981
Cars %	100.0	98.8	0.0	98.8	99.0	0.0	0.0	99.0	100.0	0.0	0.0	100.0	99.0
Heavy Vehicles	0	12	0	12	9	0	0	9	0	0	0	0	21
Heavy Vehicles %	0.0	1.2	0.0	1.2	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0
Cars Enter Leg	12	982	0	994	902	0	0	902	85	0	0	85	1981
Heavy Enter Leg	0	12	0	12	9	0	0	9	0	0	0	0	21
Total Entering Leg	12	994	0	1006	911	0	0	911	85	0	0	85	2002
Cars Exiting Leg				902				1067				12	1981
Heavy Exiting Leg				9				12				0	21
Total Exiting Leg				911				1079				12	2002

PDI File #: **197004 E**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **W: Congress Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 8, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Cars

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	6	226	0	232	218	0	0	218	27	0	0	27	477
11:15 AM	7	203	0	210	222	0	0	222	20	0	0	20	452
11:30 AM	9	197	0	206	213	0	0	213	22	0	0	22	441
11:45 AM	5	215	0	220	219	0	0	219	18	0	0	18	457
Total	27	841	0	868	872	0	0	872	87	0	0	87	1827
12:00 PM	0	231	0	231	215	0	0	215	23	0	0	23	469
12:15 PM	2	259	0	261	222	0	0	222	30	0	0	30	513
12:30 PM	4	252	0	256	256	0	0	256	17	0	0	17	529
12:45 PM	6	240	0	246	209	0	0	209	15	0	0	15	470
Total	12	982	0	994	902	0	0	902	85	0	0	85	1981
Grand Total	39	1823	0	1862	1774	0	0	1774	172	0	0	172	3808
Approach %	2.1	97.9	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
Total %	1.0	47.9	0.0	48.9	46.6	0.0	0.0	46.6	4.5	0.0	0.0	4.5	
Exiting Leg Total				1774				1995				39	3808

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
12:00 PM	0	231	0	231	215	0	0	215	23	0	0	23	469
12:15 PM	2	259	0	261	222	0	0	222	30	0	0	30	513
12:30 PM	4	252	0	256	256	0	0	256	17	0	0	17	529
12:45 PM	6	240	0	246	209	0	0	209	15	0	0	15	470
Total Volume	12	982	0	994	902	0	0	902	85	0	0	85	1981
% Approach Total	1.2	98.8	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.500	0.948	0.000	0.952	0.881	0.000	0.000	0.881	0.708	0.000	0.000	0.708	0.936
Entering Leg	12	982	0	994	902	0	0	902	85	0	0	85	1981
Exiting Leg				902				1067				12	1981
Total				1896				1969				97	3962

PDI File #: **197004 E**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **W: Congress Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 8, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**



Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	0	3	0	3	5	0	0	5	0	0	0	0	8
11:15 AM	1	1	0	2	6	0	0	6	1	0	0	1	9
11:30 AM	0	4	0	4	6	0	0	6	0	0	0	0	10
11:45 AM	1	4	0	5	4	0	0	4	1	0	0	1	10
Total	2	12	0	14	21	0	0	21	2	0	0	2	37
12:00 PM	0	6	0	6	0	0	0	0	0	0	0	0	6
12:15 PM	0	2	0	2	3	0	0	3	0	0	0	0	5
12:30 PM	0	3	0	3	4	0	0	4	0	0	0	0	7
12:45 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
Total	0	12	0	12	9	0	0	9	0	0	0	0	21
Grand Total	2	24	0	26	30	0	0	30	2	0	0	2	58
Approach %	7.7	92.3	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
Total %	3.4	41.4	0.0	44.8	51.7	0.0	0.0	51.7	3.4	0.0	0.0	3.4	
Exiting Leg Total				30				26				2	58
Buses	0	2	0	2	0	0	0	0	1	0	0	1	3
% Buses	0.0	8.3	0.0	7.7	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	5.2
Exiting Leg Total				0				3				0	3
Single-Unit Trucks	2	21	0	23	28	0	0	28	1	0	0	1	52
% Single-Unit	100.0	87.5	0.0	88.5	93.3	0.0	0.0	93.3	50.0	0.0	0.0	50.0	89.7
Exiting Leg Total				28				22				2	52
Articulated Trucks	0	1	0	1	2	0	0	2	0	0	0	0	3
% Articulated	0.0	4.2	0.0	3.8	6.7	0.0	0.0	6.7	0.0	0.0	0.0	0.0	5.2
Exiting Leg Total				2				1				0	3

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	0	3	0	3	5	0	0	5	0	0	0	0	8
11:15 AM	1	1	0	2	6	0	0	6	1	0	0	1	9
11:30 AM	0	4	0	4	6	0	0	6	0	0	0	0	10
11:45 AM	1	4	0	5	4	0	0	4	1	0	0	1	10
Total Volume	2	12	0	14	21	0	0	21	2	0	0	2	37
% Approach Total	14.3	85.7	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.500	0.750	0.000	0.700	0.875	0.000	0.000	0.875	0.500	0.000	0.000	0.500	0.925
Buses	0	0	0	0	0	0	0	0	1	0	0	1	1
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	2.7
Single-Unit Trucks	2	12	0	14	19	0	0	19	1	0	0	1	34
Single-Unit %	100.0	100.0	0.0	100.0	90.5	0.0	0.0	90.5	50.0	0.0	0.0	50.0	91.9
Articulated Trucks	0	0	0	0	2	0	0	2	0	0	0	0	2
Articulated %	0.0	0.0	0.0	0.0	9.5	0.0	0.0	9.5	0.0	0.0	0.0	0.0	5.4
Buses	0	0	0	0	0	0	0	0	1	0	0	1	1
Single-Unit Trucks	2	12	0	14	19	0	0	19	1	0	0	1	34
Articulated Trucks	0	0	0	0	2	0	0	2	0	0	0	0	2
Total Entering Leg	2	12	0	14	21	0	0	21	2	0	0	2	37
Buses				0				1				0	1
Single-Unit Trucks				19				13				2	34
Articulated Trucks				2				0				0	2
Total Exiting Leg				21				14				2	37

PDI File #: **197004 E**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **W: Congress Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 8, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdillc.com

Buses

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
12:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	0	0	0	0	0	0	0	0	0	2
Grand Total	0	2	0	2	0	0	0	0	0	1	0	0	1	3
Approach %	0.0	100.0	0.0		0.0	0.0	0.0			100.0	0.0	0.0		
Total %	0.0	66.7	0.0	66.7	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	
Exiting Leg Total	0				3				0				3	

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:45 AM	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
12:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	0	2
% Approach Total	0.0	100.0	0.0		0.0	0.0	0.0			0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	2	0	2	0	0	0	0	0	0	0	0	0	2
Exiting Leg	0				2				0				2	
Total	2				2				0				4	

PDI File #: **197004 E**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **W: Congress Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 8, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Single-Unit Trucks

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	0	3	0	3	4	0	0	4	0	0	0	0	7
11:15 AM	1	1	0	2	6	0	0	6	0	0	0	0	8
11:30 AM	0	4	0	4	6	0	0	6	0	0	0	0	10
11:45 AM	1	4	0	5	3	0	0	3	1	0	0	1	9
Total	2	12	0	14	19	0	0	19	1	0	0	1	34
12:00 PM	0	6	0	6	0	0	0	0	0	0	0	0	6
12:15 PM	0	0	0	0	3	0	0	3	0	0	0	0	3
12:30 PM	0	2	0	2	4	0	0	4	0	0	0	0	6
12:45 PM	0	1	0	1	2	0	0	2	0	0	0	0	3
Total	0	9	0	9	9	0	0	9	0	0	0	0	18
Grand Total	2	21	0	23	28	0	0	28	1	0	0	1	52
Approach %	8.7	91.3	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
Total %	3.8	40.4	0.0	44.2	53.8	0.0	0.0	53.8	1.9	0.0	0.0	1.9	
Exiting Leg Total				28				22				2	52

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	0	3	0	3	4	0	0	4	0	0	0	0	7
11:15 AM	1	1	0	2	6	0	0	6	0	0	0	0	8
11:30 AM	0	4	0	4	6	0	0	6	0	0	0	0	10
11:45 AM	1	4	0	5	3	0	0	3	1	0	0	1	9
Total Volume	2	12	0	14	19	0	0	19	1	0	0	1	34
% Approach Total	14.3	85.7	0.0		100.0	0.0	0.0		100.0	0.0	0.0		
PHF	0.500	0.750	0.000	0.700	0.792	0.000	0.000	0.792	0.250	0.000	0.000	0.250	0.850
Entering Leg	2	12	0	14	19	0	0	19	1	0	0	1	34
Exiting Leg				19				13				2	34
Total				33				32				3	68

PDI File #: **197004 E**
 Location: **N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)**
 Location: **W: Congress Street**
 City, State: **Beverly, MA**
 Client: **GPI/ D. Halpert**
 Site Code: **2019071**
 Count Date: **Saturday, June 8, 2019**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Articulated Trucks

	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total	
	from North				from South				from West					
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total		
11:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	1	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1	
Total	0	0	0	0	2	0	0	2	0	0	0	0	2	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	1	0	1	0	0	0	0	0	0	0	0	1	
Grand Total	0	1	0	1	2	0	0	2	0	0	0	0	3	
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0			
Total %	0.0	33.3	0.0	33.3	66.7	0.0	0.0	66.7	0.0	0.0	0.0	0.0		
Exiting Leg Total				2				1					0	3

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Cabot Street (Route 1A)				Cabot Street (Route 1A)				Congress Street				Total
	from North				from South				from West				
	Right	Thru	U-Turn	Total	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	
11:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	2	0	0	2	0	0	0	0	2
% Approach Total	0.0	0.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	0	0	0	2	0	0	2	0	0	0	0	2
Exiting Leg				2				0					2
Total				2				2					4

PDI File #: 197004 E
 Location: N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)
 Location: W: Congress Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 8, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Bicycles (on Roadway and Crosswalks)

	Cabot Street (Route 1A)						Cabot Street (Route 1A)						Congress Street						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	6	0	0	0	6	0	0	0	0	0	0	1	0	0	0	0	0	1	7
11:15 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
11:30 AM	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	3
11:45 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	12	0	0	0	12	3	0	0	0	0	3	1	0	0	0	0	0	1	16
12:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	7	0	0	0	0	0	7	10
12:15 PM	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
12:30 PM	0	15	0	0	0	15	0	0	0	0	0	0	1	0	0	0	0	0	1	16
12:45 PM	0	2	0	0	0	2	2	0	0	0	0	2	1	0	0	0	0	0	1	5
Total	0	30	0	0	0	30	2	0	0	0	0	2	9	0	0	0	0	0	9	41
Grand Total	0	42	0	0	0	42	5	0	0	0	0	5	10	0	0	0	0	0	10	57
Approach %	0.0	100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		
Total %	0.0	73.7	0.0	0.0	0.0	73.7	8.8	0.0	0.0	0.0	0.0	8.8	17.5	0.0	0.0	0.0	0.0	0.0	17.5	
Exiting Leg Total							5						52						0	57

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	Cabot Street (Route 1A)						Cabot Street (Route 1A)						Congress Street						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
12:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	7	0	0	0	0	0	7	10
12:15 PM	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
12:30 PM	0	15	0	0	0	15	0	0	0	0	0	0	1	0	0	0	0	0	1	16
12:45 PM	0	2	0	0	0	2	2	0	0	0	0	2	1	0	0	0	0	0	1	5
Total Volume	0	30	0	0	0	30	2	0	0	0	0	2	9	0	0	0	0	0	9	41
% Approach Total	0.0	100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.500	0.000	0.000	0.000	0.500	0.250	0.000	0.000	0.000	0.000	0.250	0.321	0.000	0.000	0.000	0.000	0.000	0.321	0.641
Entering Leg	0	30	0	0	0	30	2	0	0	0	0	2	9	0	0	0	0	0	9	41
Exiting Leg							2						39						0	41
Total							32						41						9	82

PDI File #: 197004 E
 Location: N: Cabot Street (Route 1A) S: Cabot Street (Route 1A)
 Location: W: Congress Street
 City, State: Beverly, MA
 Client: GPI/ D. Halpert
 Site Code: 2019071
 Count Date: Saturday, June 8, 2019
 Start Time: 11:00 AM
 End Time: 1:00 PM
 Class:



46 Morton Street, Framingham, MA 01702
 Office: 508-875-0100 Fax: 508-875-0118
 Email: datarequests@pdilic.com

Pedestrians

	Cabot Street (Route 1A)						Cabot Street (Route 1A)						Congress Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Cabot Street (Route 1A)						Cabot Street (Route 1A)						Congress Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

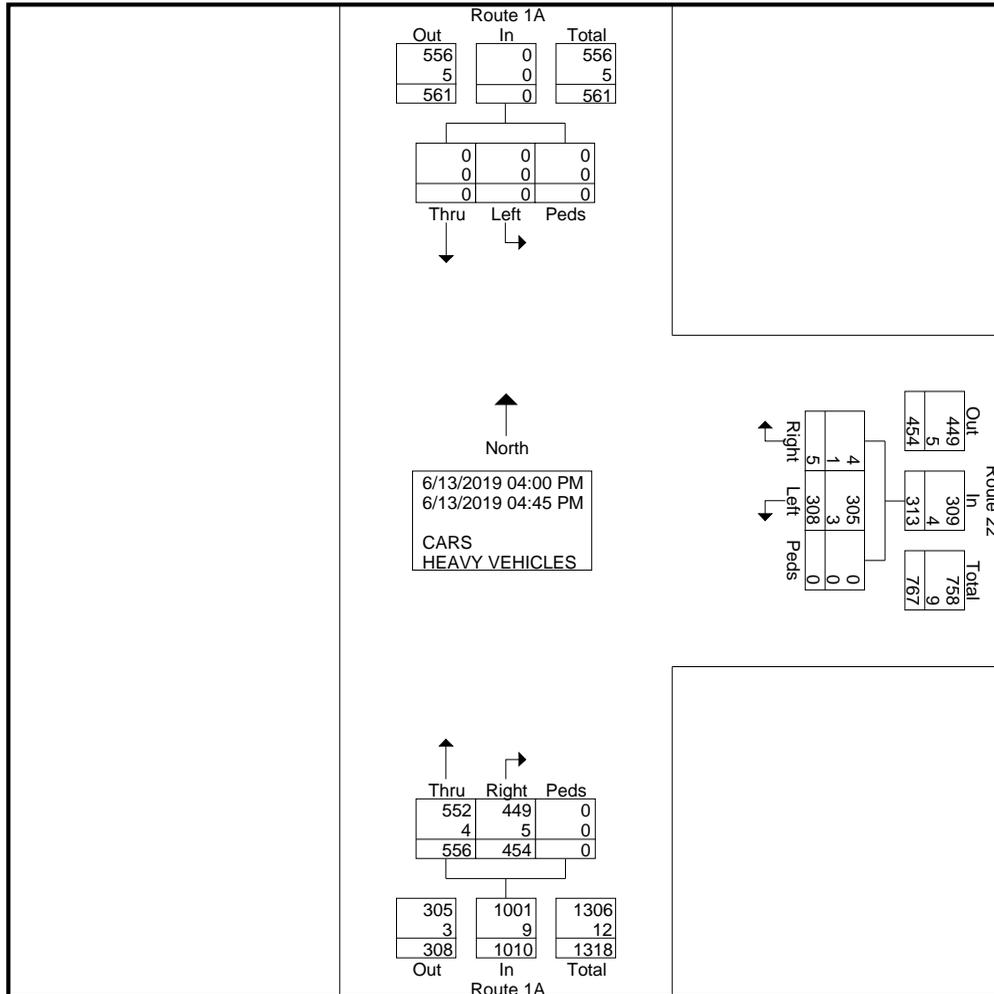


181 Ballardvale Street, Suite 202
Wilmington, MA. 01887

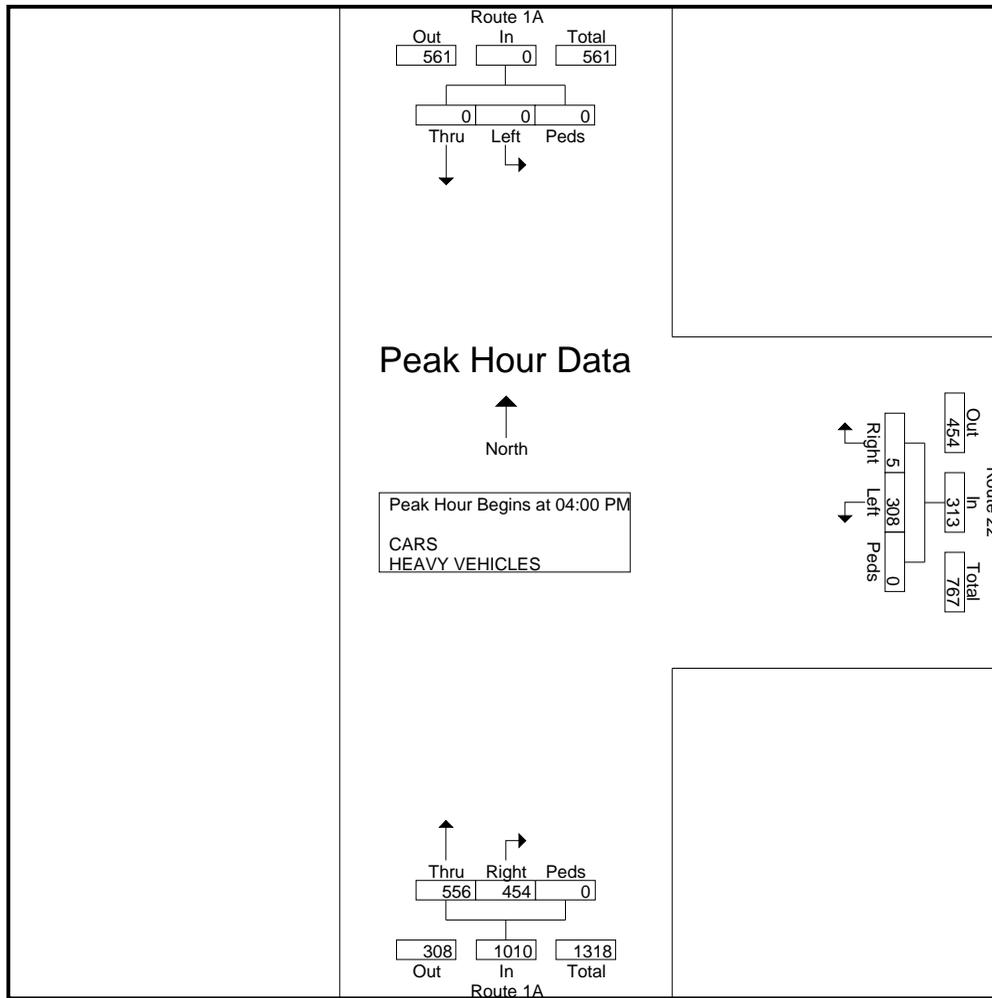
File Name : Route 1A @ Route 22 - PM
Site Code : 19071
Start Date : 6/13/2019
Page No : 1

Groups Printed- CARS - HEAVY VEHICLES

Start Time	Route 1A Southbound				Route 22 Westbound				Route 1A Northbound				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
04:00 PM	0	0	0	0	0	67	0	67	124	148	0	272	339
04:15 PM	0	0	0	0	1	93	0	94	92	134	0	226	320
04:30 PM	0	0	0	0	2	67	0	69	111	125	0	236	305
04:45 PM	0	0	0	0	2	81	0	83	127	149	0	276	359
Total	0	0	0	0	5	308	0	313	454	556	0	1010	1323
Grand Total	0	0	0	0	5	308	0	313	454	556	0	1010	1323
Apprch %	0	0	0		1.6	98.4	0		45	55	0		
Total %	0	0	0		0.4	23.3	0	23.7	34.3	42	0	76.3	
CARS	0	0	0	0	4	305	0	309	449	552	0	1001	1310
% CARS	0	0	0	0	80	99	0	98.7	98.9	99.3	0	99.1	99
HEAVY VEHICLES	0	0	0	0	1	3	0	4	5	4	0	9	13
% HEAVY VEHICLES	0	0	0	0	20	1	0	1.3	1.1	0.7	0	0.9	1

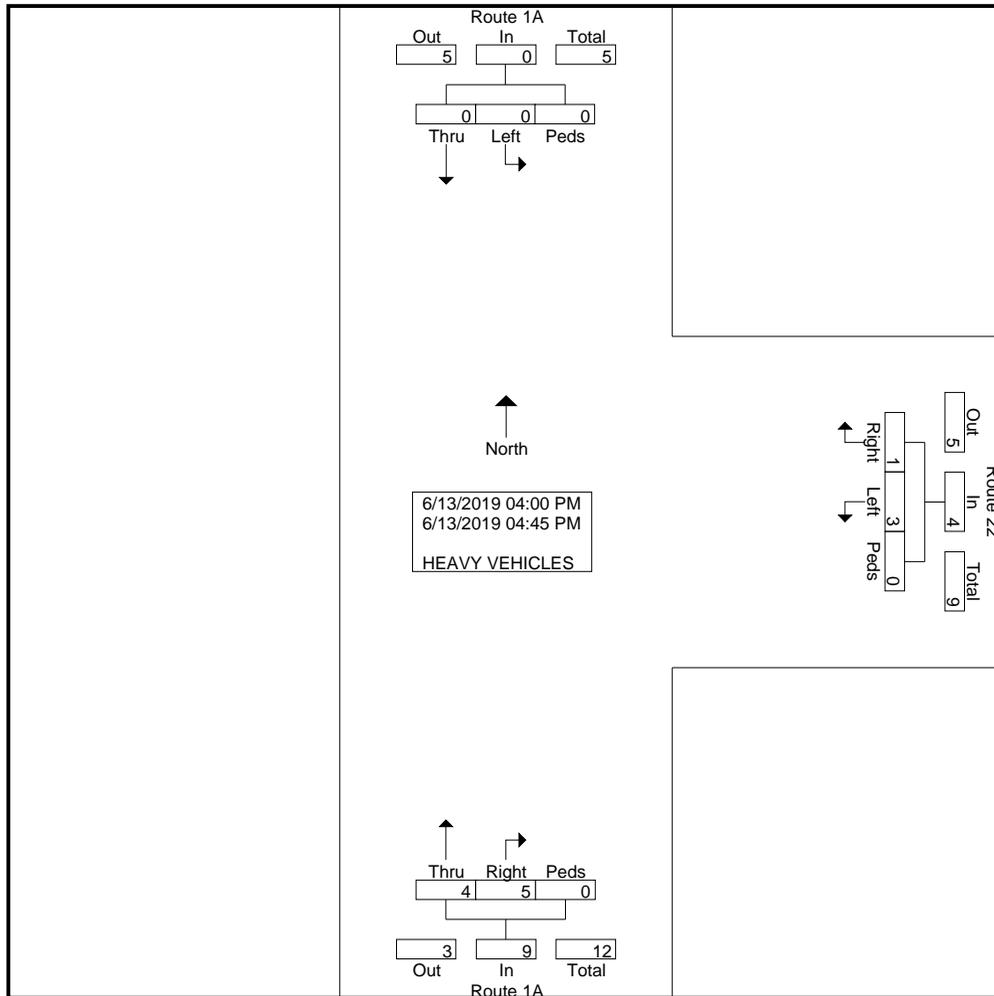


Start Time	Route 1A Southbound				Route 22 Westbound				Route 1A Northbound				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	0	0	0	0	67	0	67	124	148	0	272	339
04:15 PM	0	0	0	0	1	93	0	94	92	134	0	226	320
04:30 PM	0	0	0	0	2	67	0	69	111	125	0	236	305
04:45 PM	0	0	0	0	2	81	0	83	127	149	0	276	359
Total Volume	0	0	0	0	5	308	0	313	454	556	0	1010	1323
% App. Total	0	0	0	0	1.6	98.4	0		45	55	0		
PHF	.000	.000	.000	.000	.625	.828	.000	.832	.894	.933	.000	.915	.921



Groups Printed- HEAVY VEHICLES

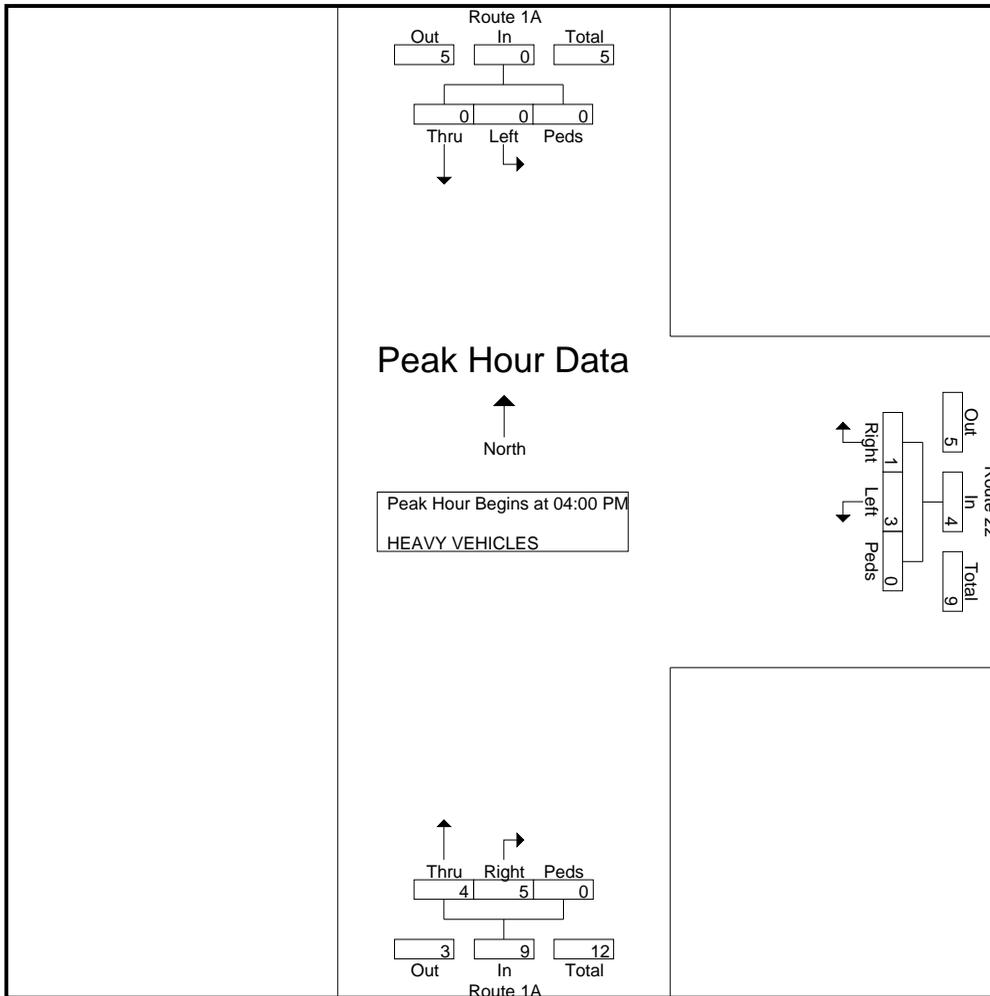
Start Time	Route 1A Southbound				Route 22 Westbound				Route 1A Northbound				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
04:00 PM	0	0	0	0	0	1	0	1	2	3	0	5	6
04:15 PM	0	0	0	0	1	1	0	2	1	0	0	1	3
04:30 PM	0	0	0	0	0	0	0	0	2	1	0	3	3
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	1	3	0	4	5	4	0	9	13
Grand Total	0	0	0	0	1	3	0	4	5	4	0	9	13
Apprch %	0	0	0		25	75	0		55.6	44.4	0		
Total %	0	0	0		7.7	23.1	0	30.8	38.5	30.8	0	69.2	



Start Time	Route 1A Southbound				Route 22 Westbound				Route 1A Northbound				Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	
04:00 PM	0	0	0	0	0	1	0	1	2	3	0	5	6
04:15 PM	0	0	0	0	1	1	0	2	1	0	0	1	3
04:30 PM	0	0	0	0	0	0	0	0	2	1	0	3	3
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	1	3	0	4	5	4	0	9	13
% App. Total	0	0	0	0	25	75	0		55.6	44.4	0		
PHF	.000	.000	.000	.000	.250	.750	.000	.500	.625	.333	.000	.450	.542

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM



TRAFFIC IMPACT AND ACCESS STUDY

Mission Boathouse Restaurant – Beverly, Massachusetts

TRAFFIC-VOLUME ADJUSTMENT DATA

MassDOT Traffic Volumes

STATION 35 - BEVERLY - RTE.128 - NORTH OF BRIMBLE AVENUE

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AADT ^b
2014	39,011	41,648	46,000	46,511	48,741	49,470	51,273	48,153	45,721	48,212	43,754	41,813	45,859
	14.9%	9.2%	-0.3%	-1.4%	-6.3%	-7.9%	-11.8%	-5.0%	0.3%	-5.1%	4.6%	8.8%	0.0%
2015	41,103	41,143	43,402	46,446	50,910	51,501	54,455	54,687	52,058	48,570	44,669	44,523	47,789
	14.0%	13.9%	9.2%	2.8%	-6.5%	-7.8%	-13.9%	-14.4%	-8.9%	-1.6%	6.5%	6.8%	0.0%

Seasonal Adj. ^c 14.5% 11.5% 4.4% 0.7% -6.4% -7.8% -12.9% -9.7% -4.3% -3.4% 5.6% 7.8% 0.0%

STATION 5557 - DANVERS - RTE.I-95 - SOUTH OF RTE. 62

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AADT ^b
2015	67,037	67,516	73,771	77,597	83,525	87,126	93,091	85,505	80,560		78,181	76,418	79,121
	15.3%	14.7%	6.8%	1.9%	-5.6%	-10.1%	-17.7%	-8.1%	-1.8%		1.2%	3.4%	0.0%
2016	71,808	73,077	76,958	79,548	85,855	90,958	94,902	97,164	88,540	87,624	81,121	77,354	83,742
	14.3%	12.7%	8.1%	5.0%	-2.5%	-8.6%	-13.3%	-16.0%	-5.7%	-4.6%	3.1%	7.6%	0.0%
2017	74,583	75,288	77,988	81,624	87,570	93,082	96,300		91,022	89,949	83,018	78,190	85,567
	12.8%	12.0%	8.9%	4.6%	-2.3%	-8.8%	-12.5%		-6.4%	-5.1%	3.0%	8.6%	0.0%

Seasonal Adj. ^c 14.1% 13.1% 7.9% 3.8% -3.5% -9.2% -14.5% -12.0% -4.6% -4.9% 2.4% 6.6% 0.0%

STATION 5558 - DANVERS - RTE.I-95 - NORTH OF RTE. 62

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AADT ^b
2016	67,839	69,493	73,012	76,097	81,527	87,611	91,400	93,616	84,667	83,202	78,461	72,594	79,960
	15.2%	13.1%	8.7%	4.8%	-2.0%	-9.6%	-14.3%	-17.1%	-5.9%	-4.1%	1.9%	9.2%	0.0%
2017	70,224	72,137	72,860		83,777	88,516	92,149		85,972	84,791	77,875	73,003	81,358
	13.7%	11.3%	10.4%		-3.0%	-8.8%	-13.3%		-5.7%	-4.2%	4.3%	10.3%	0.0%

Seasonal Adj. ^c 14.4% 12.2% 9.6% 4.8% -2.5% -9.2% -13.8% -17.1% -5.8% -4.1% 3.1% 9.7% 0.0%

STATION 5048 - TOPSFIELD - RTE.I-95 - NORTH OF RTE.1

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AADT ^b
2014	81,124	79,089	80,968	88,368	97,414	102,028	103,663	106,415	98,388	96,747	83,815	100,002	93,168
	12.9%	15.1%	13.1%	5.2%	-4.6%	-9.5%	-11.3%	-14.2%	-5.6%	-3.8%	10.0%	-7.3%	0.0%
2016	73,835	67,576	79,467	81,351	87,888	93,067	97,107	99,421	88,637	86,505	81,682	78,194	84,561
	12.7%	20.1%	6.0%	3.8%	-3.9%	-10.1%	-14.8%	-17.6%	-4.8%	-2.3%	3.4%	7.5%	0.0%

Seasonal Adj. ^c 12.8% 17.6% 9.6% 4.5% -4.2% -9.8% -13.1% -15.9% -5.2% -3.1% 6.7% 0.1% 0.0%

Average 14.0% 13.6% 7.9% 3.5% -4.2% -9.0% -13.6% -13.7% -5.0% -3.9% 4.5% 6.1% 0.0%

^a Based upon historical data. Source: MassDOT 2009 Traffic Volumes and MassDOT Transportation Data Management System

^b Average Annual Daily Traffic.

^c Seasonal adjustment to yearly average.

Traffic Growth Factor Worksheet

Temporary Count Stations

(Source: MassDOT Transportation Data Management System)

STA.	CITY/TOWN	ROUTE/STREET	LOCATION	2010	2011	2012	2013	2014	2015	2016	2017	Average % Growth
5100	Beverly	Kernwood Street	at Beverly	6,300	6,432	6,543	6,023					-1.4%
5072	Beverly	Essex Street	at Wenham Town Line	4,400	4,399	4,199	4,083			4,792		1.5%
5076	Beverly	Hale Street	East of Haskell Street	4,742	4,218	3,991	4,004	4,375			4,796	0.4%

Average Growth: 0.2%

Say:	0.5%
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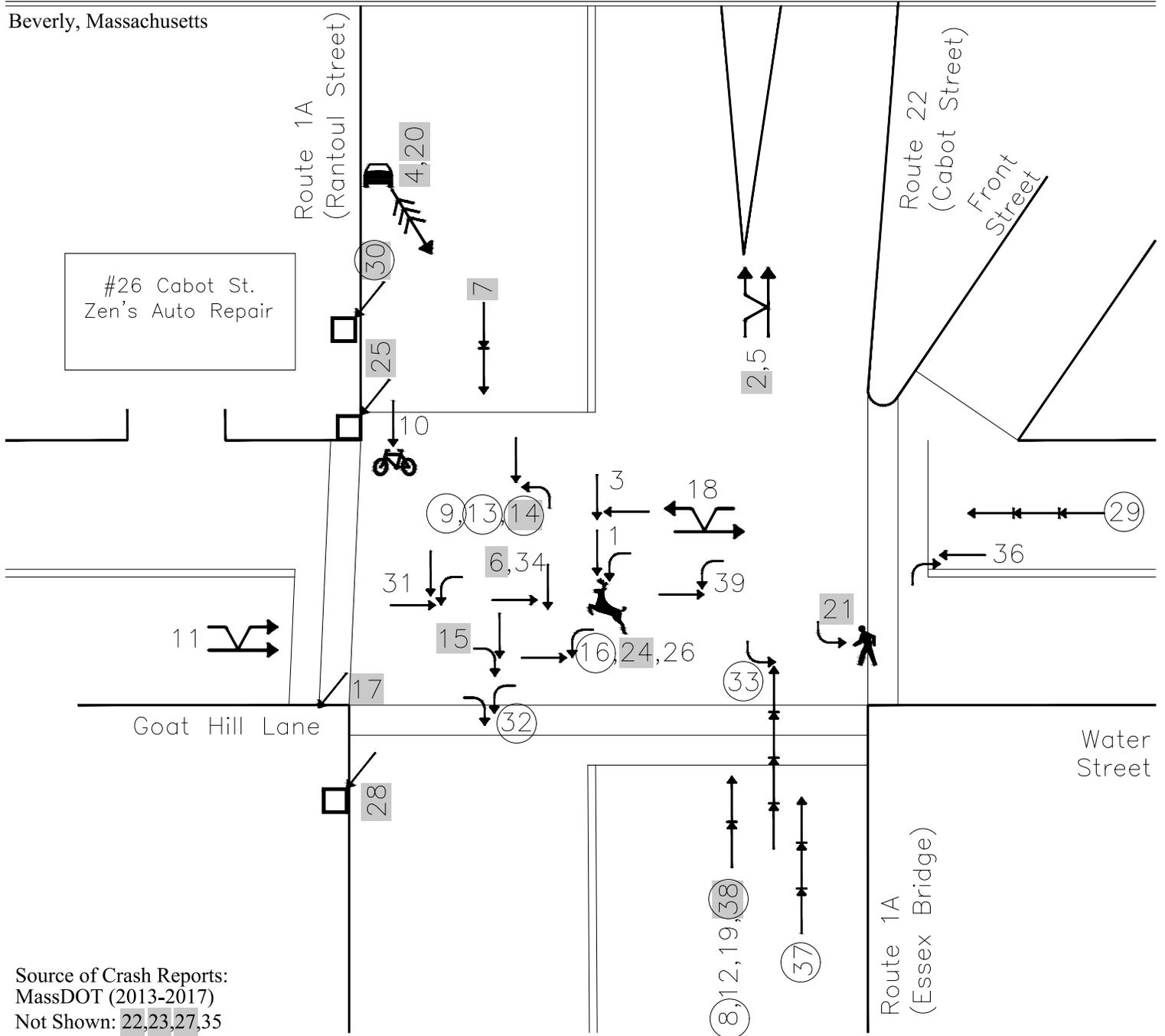
TRAFFIC IMPACT AND ACCESS STUDY

Mission Boathouse Restaurant – Beverly, Massachusetts

MASSDOT CRASH DATA

COLLISION DIAGRAM

Beverly, Massachusetts



Source of Crash Reports:
MassDOT (2013-2017)
Not Shown: 22,23,27,35

	Moving Vehicle		Head on		 NOT TO SCALE
	Backing Vehicle		Rear End		
	Non-Involved Vehicle		Angle		
	Pedestrian		Turning Movement		
	Bicycle		Sideswipe		
	Animal		Out of Control		
	Parked Vehicle		Night Time Crash		
	Fixed Object				

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : BEVERLY COUNT DATE : Jun-19

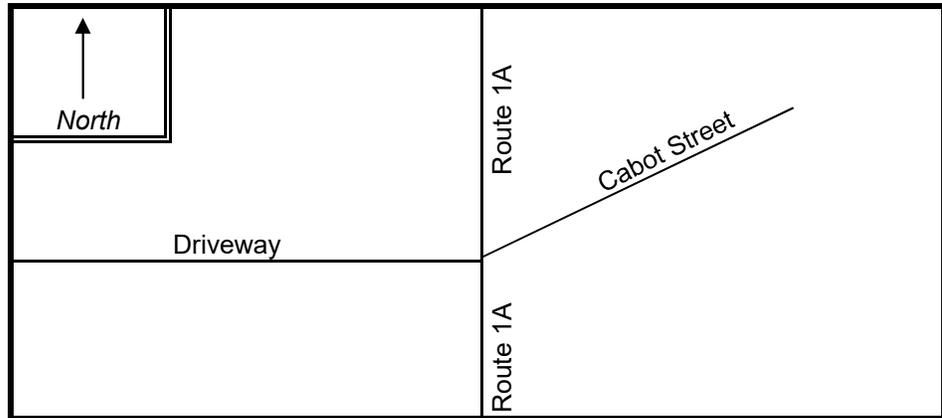
DISTRICT : 4 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : RANTOUL STREET (ROUTE 1A)

MINOR STREET(S) : CABOT STREET (ROUTE 22)

**INTERSECTION
DIAGRAM**
(Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	2	179	803	516		1,500

"K" FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION :

0.61

RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : "K" Factor calculated from ATRs along Route 1A

Project Title & Date: MAX-2019071 - Mission Boathouse Restaurant, Beverly, MA

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : BEVERLY COUNT DATE : Jun-19

DISTRICT : 4 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : RANTOUL STREET (ROUTE 1A)

MINOR STREET(S) : CONGRESS STREET

**INTERSECTION
 DIAGRAM**
 (Label Approaches)



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	113			2,413		2,526

"K" FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION :

0.06

RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : "K" Factor calculated from ATRs along Route 1A

Project Title & Date : MAX-2019071 - Mission Boathouse Restaurant, Beverly, MA

MassDOT Crash Data 2013-2017
Route 1A / Water Street / Goat Hill Lane / Front Street

Crash Diagram Number	Crash Date	Day of Week	Crash Time	Crash Severity	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Vehicle Configuration	Driver Contributing Codes	Hit & Run	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway	Distance And Direction From Intersection	Landmark	Distance And Direction From Landmark	Traffic Control Device Type	Traffic Device Functioning
1	3/8/2013	Friday	12:24 PM	Property damage only (none injured)	0	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:S / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with animal - other)	V1:(Passenger car) V2:(Passenger car)	D1:(No improper driving) D2:(Inattention)	No hit and run	Wet	Daylight	Snow / Snow		CABOT ST / WATER ST				Traffic control signal	Yes, device functioning
2	3/23/2013	Saturday	1:25 AM	Property damage only (none injured)	0	0	2	Sideswipe, same direction	V1: Changing lanes / V2:Travelling straight ahead	V1:N / V2:N	V1:(Collision with motor vehicle in traffic),(Separation of units) V2:(Collision with motor vehicle in traffic),(Separation of units)	V1:(Passenger car) V2:(Passenger car)	D1:(Disregarded traffic signs, signals, road markings),(Failure to keep in proper lane or running off road) D2:(No improper driving),(No improper driving)	No hit and run	Dry	Dark - lighted roadway	Clear / Clear	24	CABOT ST Rte 1A N				Traffic control signal	Yes, device functioning
3	8/29/2013	Thursday	5:27 PM	Property damage only (none injured)	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:W / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(No improper driving) D2:(Disregarded traffic signs, signals, road markings)	No hit and run	Dry	Daylight	Clear / Clear		GOAT HILL LN / CABOT ST Rte 1A S				Traffic control signal	Yes, device functioning
4	9/11/2013	Wednesday	8:00 PM	Property damage only (none injured)	0	0	2	Angle	V1: Backing / V2:Parked	V1:N / V2:S	V1:(Collision with parked motor vehicle) V2:(Collision with parked motor vehicle)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving) D2:(No improper driving)	No hit and run	Dry	Dark - lighted roadway	Clear / Clear	20	CABOT ST				No controls	No, device not functioning
5	11/4/2013	Monday	7:30 AM	Property damage only (none injured)	0	0	2	Sideswipe, same direction	V1: Overtaking/passing / V2:Travelling straight ahead	V1:N / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner) D2:(No improper driving)	Yes, hit and run	Dry	Daylight	Clear / Clear		CABOT ST / WATER ST				Traffic control signal	Yes, device functioning
6	3/11/2014	Tuesday	1:58 PM	Property damage only (none injured)	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:E / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving),(No improper driving) D2:(Disregarded traffic signs, signals, road markings)	No hit and run	Dry	Daylight	Clear / Clear		GOAT HILL LN Rte 1A / CABOT ST				Traffic control signal	Yes, device functioning
7	3/12/2014	Wednesday	8:30 PM	Property damage only (none injured)	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:S / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner) D2:(No improper driving)	No hit and run	Wet	Dark - lighted roadway	Rain/Rain	0	CABOT ST Rte 1A S	50 feet S of	AL'S BAIT SHOP	10 feet S of	Traffic control signal	Yes, device functioning
8	3/14/2014	Friday	6:03 PM	Non-fatal injury	1	0	2	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:N / V2:N	V1:(Collision with motor vehicle in traffic) V2:	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)	D1:(Followed too closely),(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner) D2:(No improper driving)	No hit and run	Dry	Daylight	Clear / Clear		CABOT ST Rte 1A N / WATER ST				Traffic control signal	Yes, device functioning
9	5/10/2014	Saturday	1:29 PM	Non-fatal injury	1	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:S / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(No improper driving) D2:(Failed to yield right of way)	Yes, hit and run	Dry	Daylight	Clear / Clear		GOAT HILL LN / CABOT ST				Traffic control signal	Yes, device functioning
10	5/23/2014	Friday	1:20 PM	Property damage only (none injured)	0	0	1	Single vehicle crash	V1: Slowing or stopped in traffic	V1:S	V1:(Collision with cyclist)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving)	No hit and run	Dry	Daylight	Cloudy / Cloudy		GOAT HILL LN / CABOT ST				Traffic control signal	Yes, device functioning
11	5/30/2014	Friday	3:32 PM	Property damage only (none injured)	0	0	2	Sideswipe, same direction	V1: Travelling straight ahead / V2:Entering traffic lane	V1:E / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Single-unit truck (2-axle, 6-tire)) V2:(Passenger car)	D1:(No improper driving),(No improper driving) D2:(Failed to yield right of way)	No hit and run	Dry	Daylight	Clear / Clear		GOAT HILL LANE / CABOT STREET Rte SR1A S				Traffic control signal	Yes, device functioning
12	7/8/2014	Tuesday	2:29 PM	Property damage only (none injured)	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:N / V2:8	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)	D1:(Followed too closely),(Inattention) D2:(No improper driving)	No hit and run	Dry	Daylight	Clear / Clear		CABOT ST / WATER ST				Traffic control signal	Yes, device functioning

MassDOT Crash Data 2013-2017
Route 1A / Water Street / Goat Hill Lane / Front Street

Crash Diagram Number	Crash Date	Day of Week	Crash Time	Crash Severity	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Vehicle Configuration	Driver Contributing Codes	Hit & Run	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway	Distance And Direction From Intersection	Landmark	Distance And Direction From Landmark	Traffic Control Device Type	Traffic Device Functioning
13	12/23/2014	Tuesday	7:19 AM	Non-fatal injury	1	0	2	Head-on	V1: Travelling straight ahead / V2:Turning left	V1:S / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(Disregarded traffic signs, signals, road markings) D2:(No improper driving)	No hit and run	Wet	Daylight	Rain / Cloudy		CABOT STREET Rte SR1A S / GOAT HILL LANE			Traffic control signal	Yes, device functioning	
14	1/19/2015	Monday	6:56 PM	Non-fatal injury	1	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:N / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(Disregarded traffic signs, signals, road markings) D2:(No improper driving)	No hit and run	Dry	Dark - lighted roadway	Clear / Clear		CABOT STREET / WATER STREET /		GOAT HILL LANE	Traffic control signal	Yes, device functioning	
15	1/30/2015	Friday	5:50 PM	Property damage only (none injured)	0	0	2	Angle	V1: Travelling straight ahead / V2:Turning right	V1:S / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving) D2:(Made an improper turn),(Failure to keep in proper lane or running off road)	No hit and run	Wet	Dark - lighted roadway	Cloudy / Snow		CABOT ST Rte 1A S / GOAT HILL LN			Traffic control signal	Yes, device functioning	
16	3/15/2015	Sunday	8:38 AM	Non-fatal injury	1	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:W / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving),(No improper driving) D2:(Unknown),(Unknown)	Yes, hit and run	Wet	Daylight	Cloudy / Cloudy		CABOT ST / WATER ST			Traffic control signal	Yes, device functioning	
17	4/10/2015	Friday	1:47 AM	Property damage only (none injured)	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:S	V1:(Collision with curb)	V1:(Passenger car)	D1:(Unknown)	No hit and run	Wet	Dark - lighted roadway	Rain/Rain		CABOT STREET Rte 1A S			Traffic control signal	Yes, device functioning	
18	4/13/2015	Monday	8:15 AM	Property damage only (none injured)	0	0	2	Sideswipe, opposite direction	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:W / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving) D2:(No improper driving)	No hit and run	Dry	Daylight	Clear / Clear		CABOT ST / WATER ST			Traffic control signal	Yes, device functioning	
19	5/8/2015	Friday	7:18 AM	Property damage only (none injured)	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:N / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(No improper driving) D2:(No improper driving)	No hit and run	Dry	Daylight	Clear / Clear		CABOT STREET / WATER STREET			Traffic control signal	Yes, device functioning	
20	6/7/2015	Sunday	12:25 AM	Unknown	0	0	2	Rear-end	V1: Parked / V2:Travelling straight ahead	V1:8 / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with parked motor vehicle)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner) D2:(No improper driving)	No hit and run	Dry	Dark - lighted roadway	Clear / Clear	20	CABOT ST			No controls	Yes, device functioning	
21	8/29/2015	Saturday	10:27 PM	Property damage only (none injured)	0	0	1	Single vehicle crash	V1: Turning left	V1:S	V1:(Collision with pedestrian)	V1:(Passenger car)	D1:(No improper driving),(No improper driving)	No hit and run	Dry	Dark - lighted roadway	Clear / Clear		CABOT ST / WATER ST			Traffic control signal	Yes, device functioning	
22	9/13/2015	Sunday	3:45 AM	Property damage only (none injured)	0	0	3	Angle	V1: Parked / V2:Parked / V3:Travelling straight ahead	V1:8 / V2:8 / V3:8	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with parked motor vehicle)	V1:(Passenger car) V2:(Passenger car) V3:(Passenger car)	D1:(No improper driving) D2:(No improper driving) D3:(Unknown)	Yes, hit and run	Wet	Dark - lighted roadway	Rain/Rain		GOAT HILL LN / CABOT ST			Traffic control signal	Yes, device functioning	
23	12/2/2015	Wednesday	7:34 PM	Property damage only (none injured)	0	0	2	Sideswipe, same direction	V1: Changing lanes / V2:Travelling straight ahead	V1:8 / V2:8	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)	D1:(Unknown) D2:(No improper driving)	No hit and run	Wet	Dark - lighted roadway	Rain/Rain		GOAT HILL LN / CABOT ST			Traffic control signal	Yes, device functioning	
24	1/27/2016	Wednesday	6:18 PM	Property damage only (none injured)	0	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:S / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)	D1:(Disregarded traffic signs, signals, road markings) D2:(No improper driving)	No hit and run	Dry	Dark - lighted roadway	Cloudy / Cloudy		GOAT HILL LN / CABOT ST			Traffic control signal	Yes, device functioning	
25	3/29/2016	Tuesday	1:55 AM	Property damage only (none injured)	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:S	V1:(Collision with curb),(Collision with light pole or other post/support)	V1:(Passenger car)	D1:(Unknown)	No hit and run	Wet	Dark - lighted roadway	Cloudy / Cloudy		GOAT HILL LN / CABOT ST			Traffic control signal	Yes, device functioning	
26	5/4/2016	Wednesday	8:38 AM	Property damage only (none injured)	0	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:S / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(No improper driving) D2:(No improper driving)	No hit and run	Dry	Daylight	Cloudy / Cloudy		CABOT STREET Rte SR1A S / GOAT HILL LANE			Traffic control signal	Yes, device functioning	

MassDOT Crash Data 2013-2017
Route 1A / Water Street / Goat Hill Lane / Front Street

Crash Diagram Number	Crash Date	Day of Week	Crash Time	Crash Severity	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Vehicle Configuration	Driver Contributing Codes	Hit & Run	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway	Distance And Direction From Intersection	Landmark	Distance And Direction From Landmark	Traffic Control Device Type	Traffic Device Functioning
27	7/16/2016	Saturday	1:30 AM	Property damage only (none injured)	0	0	2	Rear-to-rear	V1: Backing / V2:Parked	V1:8 / V2:U	V1:(Collision with parked motor vehicle) V2:(Other)	V1:(Passenger car) V2:(Passenger car)	D1:(No improper driving) D2:()	No hit and run	Dry	Dark - lighted roadway	Clear / Clear	20	CABOT ST				No controls	Not reported
28	7/31/2016	Sunday	12:44 AM	Property damage only (none injured)	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:S	V1:(Collision with utility pole)	V1:(Passenger car)	D1:(No improper driving)	No hit and run	Dry	Dark - lighted roadway	Cloudy / Cloudy		GOAT HILL LN / CABOT ST				Traffic control signal	Yes, device functioning
29	8/13/2016	Saturday	4:36 PM	Non-fatal injury	2	0	3	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic	V1:W / V2:W / V3:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car) V3:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(Other improper action) D2:(No improper driving) D3:(No improper driving)	No hit and run	Dry	Daylight	Clear / Cloudy		CABOT ST / WATER ST				Traffic control signal	Yes, device functioning
30	10/9/2016	Sunday	3:02 AM	Non-fatal injury	1	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:S	V1:(Collision with tree)	V1:(Passenger car)	D1:(Exceeded authorized speed limit),(Failure to keep in proper lane or running off road)	No hit and run	Wet	Dark - lighted roadway	Cloudy / Cloudy		GOAT HILL LN / CABOT ST				Traffic control signal	Yes, device functioning
31	10/28/2016	Friday	1:53 PM	Property damage only (none injured)	0	0	3	Angle	V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Turning left	V1:S / V2:E / V3:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car) V3:(Passenger car)	D1:(No improper driving) D2:(No improper driving) D3:(Failed to yield right of way)	No hit and run	Wet	Daylight	Rain/Rain		GOAT HILL LN / CABOT ST				Traffic control signal	Yes, device functioning
32	11/1/2016	Tuesday	8:48 AM	Non-fatal injury	1	0	2	Angle	V1: Turning left / V2:Turning right	V1:W / V2:E	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Unknown heavy truck, cannot classify) V2:(Passenger car)	D1:(No improper driving) D2:(Glare)	No hit and run	Dry	Daylight	Clear / Clear		CABOT STREET Rte 1A N / WATER STREET				Traffic control signal	Yes, device functioning
33	12/15/2016	Thursday	6:46 AM	Non-fatal injury	3	0	5	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic / V4:Slowing or stopped in traffic / V5:Turning left	V1:N / V2:N / V3:N / V4:N / V5:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic) V4:(Collision with motor vehicle in traffic) V5:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V3:(Passenger car) V4:(Single-unit truck (2-axle, 6-tire)) V5:(Passenger car)	D1:(Disregarded traffic signs, signals, road markings) D2:(No improper driving) D3:(No improper driving) D4:(No improper driving) D5:(No improper driving)	No hit and run	Dry	Daylight	Clear / Clear		CABOT STREET Rte SR1A N / WATER STREET / GOAT HILL LANE				Traffic control signal	Yes, device functioning
34	1/23/2017	Monday	1:30 PM	Property damage only (none injured)	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:E / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(No improper driving) D2:(Unknown)	No hit and run	Wet	Daylight	Rain / Cloudy		GOAT HILL LN / CABOT ST				Traffic control signal	Yes, device functioning
35	5/21/2017	Sunday	4:16 PM	Property damage only (none injured)	0	0	2	Angle	V1: Parked / V2:Not reported	V1:W / V2:U	V1:(Collision with motor vehicle in traffic) V2:(Collision with parked motor vehicle)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:()	D1:(No improper driving),(No improper driving) D2:(Other improper action)	Yes, hit and run	Dry	Daylight	Clear / Clear	1	WATER ST				No controls	Not reported
36	9/30/2017	Saturday	2:47 PM	Property damage only (none injured)	0	0	2	Angle	V1: Turning right / V2:Slowing or stopped in traffic	V1:N / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(Driving too fast for conditions) D2:(No improper driving)	No hit and run	Wet	Daylight	Rain / Cloudy		CABOT ST / WATER ST				Traffic control signal	Yes, device functioning
37	10/9/2017	Monday	11:42 AM	Non-fatal injury	2	0	3	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic / V3:Slowing or stopped in traffic	V1:N / V2:N / V3:8	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V3:()	D1:(Inattention),(Driving too fast for conditions) D2:(No improper driving) D3:(No improper driving)	Yes, hit and run	Wet	Daylight	Cloudy / Cloudy		CABOT STREET Rte 1A N / WATER STREET				Traffic control signal	Yes, device functioning

MassDOT Crash Data 2013-2017
Route 1A / Water Street / Goat Hill Lane / Front Street

Crash Diagram Number	Crash Date	Day of Week	Crash Time	Crash Severity	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Vehicle Configuration	Driver Contributing Codes	Hit & Run	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway	Distance And Direction From Intersection	Landmark	Distance And Direction From Landmark	Traffic Control Device Type	Traffic Device Functioning
38	10/14/2017	Saturday	12:44 AM	Non-fatal injury	1	0	2	Rear-end	V1: Slowing or stopped in traffic / V2: Travelling straight ahead	V1: N / V2: N	V1: (Collision with motor vehicle in traffic) V2: (Collision with motor vehicle in traffic)	V1: (Light truck (van, mini-van, panel, pickup, sport utility) with only four tires) V2: (Passenger car)	D1: (No improper driving) D2: (Followed too closely)	No hit and run	Dry	Dusk	Clear / Clear		CABOT STREET Rte 1A N / GOAT HILL LANE				Traffic control signal	Yes, device functioning
39	12/16/2017	Saturday	10:00 AM	Property damage only (none injured)	0	0	2	Head-on	V1: Travelling straight ahead / V2: Turning left	V1: E / V2: W	V1: (Collision with motor vehicle in traffic) V2: (Collision with motor vehicle in traffic)	V1: (Single-unit truck (2-axle, 6-tire)) V2: (Light truck (van, mini-van, panel, pickup, sport utility) with only four tires)	D1: (No improper driving) D2: (Failed to yield right of way), (Operating defective equipment)	No hit and run	Dry	Daylight	Clear / Clear		CABOT STREET Rte 1A N / GOAT HILL LANE				Traffic control signal	Yes, device functioning

MassDOT Crash Data 2013-2017
Route 1A / Route 22

Crash Date	Day of Week	Crash Time	Crash Severity	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Vehicle Configuration	Driver Contributing Codes	Non Motorist Type	Non Motorist Action	Hit & Run	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway	Distance And Direction From Intersection	Landmark	Distance And Direction From Landmark	Traffic Control Device Type	Traffic Device Functioning
10/4/2013	Friday	12:15 AM	Non-fatal injury	1	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:S / V2:N	V1:(Collision with curb),(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(Disregarded traffic signs, signals, road markings),(Wrong side or wrong way) D2:(No improper driving)			No hit and run	Dry	Dark - lighted roadway	Clear / Clear		CABOT STREET Rte 1A / RANTOUL STREET				Traffic control signal	Yes, device functioning
11/12/2013	Tuesday	4:48 PM	Non-fatal injury	1	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:S	V1:(Collision with pedestrian)	V1:(Passenger car)	D1:()	P2:Pedestrian	P2:Entering or crossing specified location	No hit and run	Dry	Dusk	Clear / Clear	7	RANTOUL ST Rte 1A S				No controls	Not reported
6/16/2014	Monday	12:30 AM	Non-fatal injury	1	0	3	Single vehicle crash	V1: Travelling straight ahead / V2:Parked / V3:Parked	V1:N / V2:8 / V3:8	V1:(Collision with parked motor vehicle) V2: V3:	V1:(Passenger car) V2:(Passenger car) V3:(Passenger car)	D1:(Failure to keep in proper lane or running off road) D2:() D3:()			No hit and run	Dry	Dark - lighted roadway	Clear / Clear	12	RANTOUL ST				No controls	No, device not functioning
10/1/2014	Wednesday	1:30 AM	Property damage only (none injured)	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:S	V1:(Collision with curb),(Equipment failure),(Cross median or centerline)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(Driving too fast for conditions),(Exceeded authorized speed limit)			No hit and run	Wet	Dark - lighted roadway	Rain/Rain		CABOT STREET Rte 22 S				Traffic control signal	Yes, device functioning
11/12/2014	Wednesday	1:20 AM	Property damage only (none injured)	0	0	1	Single vehicle crash	V1: Turning left	V1:S	V1:(Collision with median barrier)	V1:(Passenger car)	D1:(Exceeded authorized speed limit)			No hit and run	Dry	Dark - lighted roadway	Cloudy / Fog, smog, smoke		CABOT STREET Rte SR22 S / RANTOUL STREET Rte 1A SB S				Traffic control signal	Yes, device functioning
12/6/2014	Saturday	12:15 AM	Property damage only (none injured)	0	0	3	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic / V3:Travelling straight ahead	V1:S / V2:S / V3:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic) V3:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car) V3:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving) D2:(No improper driving) D3:(No improper driving)			No hit and run	Wet	Dark - lighted roadway	Rain/Rain		CABOT STREET Rte SR22 S / RANTOUL STREET Rte 1A				Traffic control signal	Yes, device functioning
2/3/2015	Tuesday	1:25 AM	Non-fatal injury	1	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:N	V1:(Other),(Overturn/rollover)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving)			No hit and run	Snow	Dark - lighted roadway	Cloudy / Snow	27	CABOT ST				No controls	Yes, device functioning
4/8/2015	Wednesday	3:00 PM	Property damage only (none injured)	0	0	2	Angle	V1: Leaving traffic lane / V2:Travelling straight ahead	V1:N / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Single-unit truck (3-or-more axles))	D1:(Failure to keep in proper lane or running off road),(Failed to yield right of way) D2:(No improper driving),(No improper driving)			No hit and run	Wet	Daylight	Cloudy / Cloudy		CABOT STREET Rte SR22 N / RANTOUL STREET Rte SR1A N	NEAR 25 CABOT ST			Traffic control signal	Yes, device functioning
5/22/2015	Friday	10:00 AM	Property damage only (none injured)	0	0	2	Sideswipe, same direction	V1: Travelling straight ahead / V2:Parked	V1:S / V2:8	V1:(Collision with parked motor vehicle) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner),(Failure to keep in proper lane or running off road) D2:()			No hit and run	Dry	Daylight	Clear / Clear	34	CABOT ST				No controls	Not reported
2/16/2016	Tuesday	6:56 AM	Property damage only (none injured)	0	0	2	Angle	V1: Backing / V2:Slowing or stopped in traffic	V1:W / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)	D1:(Inattention) D2:(No improper driving),(No improper driving)			No hit and run	Snow	Daylight	Clear / Clear		CABOT STREET Rte SR22 N / RANTOUL STREET Rte SR1A N				Traffic control signal	Yes, device functioning
4/1/2016	Friday	7:55 PM	Property damage only (none injured)	0	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:S / V2:S	V1:(Collision with motor vehicle in traffic),(Separation of units) V2:(Collision with motor vehicle in traffic),(Separation of units)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving),(No improper driving) D2:(Followed too closely),(Disregarded traffic signs, signals, road markings)			No hit and run	Dry	Dark - lighted roadway	Clear / Clear		CABOT STREET / RANTOUL STREET				Traffic control signal	Yes, device functioning
5/24/2016	Tuesday	12:06 PM	Not Reported	0	0	2	Sideswipe, same direction	V1: Parked / V2:Unknown	V1:N / V2:8	V1:(Collision with parked motor vehicle) V2:(Collision with parked motor vehicle)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:()	D1:() D2:()			Yes, hit and run	Wet	Daylight	Cloudy / Cloudy	7	RANTOUL ST Rte 1A N				No controls	Not reported
6/7/2016	Tuesday	12:53 PM	Property damage only (none injured)	0	0	2	Sideswipe, same direction	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:N / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving) D2:(No improper driving)			No hit and run	Wet	Daylight	Rain / Cloudy		CABOT STREET Rte SR22 N / RANTOUL STREET Rte SR1A N				Traffic control signal	Yes, device functioning
6/8/2016	Wednesday	3:59 PM	Property damage only (none injured)	0	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:S / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)	D1:(No improper driving) D2:(Followed too closely)			No hit and run	Dry	Daylight	Clear / Clear	6	RANTOUL ST				Traffic control signal	Yes, device functioning

MassDOT Crash Data 2013-2017
Route 1A / Route 22

Crash Date	Day of Week	Crash Time	Crash Severity	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Vehicle Configuration	Driver Contributing Codes	Non Motorist Type	Non Motorist Action	Hit & Run	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway	Distance And Direction From Intersection	Landmark	Distance And Direction From Landmark	Traffic Control Device Type	Traffic Device Functioning
7/22/2016	Friday	8:45 AM	Property damage only (none injured)	0	0	2	Sideswipe, same direction	V1: Changing lanes / V2: Travelling straight ahead	V1:N / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(Failed to yield right of way) D2:(No improper driving)			No hit and run	Dry	Daylight	Clear / Cloudy		CABOT STREET / RANTOUL STREET				Traffic control signal	Yes, device functioning
9/25/2017	Monday	10:30 PM	Not Reported	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:8	V1:(Collision with work zone maintenance equipment),(Collision with curb)	V1:(Passenger car)	D1:(Operating vehicle in erratic, reckless, careless, negligent or aggressive manner),(Exceeded authorized speed limit)			No hit and run	Dry	Dark - lighted roadway	Clear / Clear		RANTOUL STREET Rte 1A N / CABOT STREET				Flashing traffic control signal	Yes, device functioning
11/12/2017	Sunday	3:55 AM	Property damage only (none injured)	0	0	1	Single vehicle crash	V1: Travelling straight ahead	V1:S	V1:(Collision with light pole or other post/support)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(Failure to keep in proper lane or running off road)			No hit and run	Dry	Dark - lighted roadway	Clear / Clear	25	CABOT STREET Rte 1A S		CUSTOM MEDICINE		Traffic control signal	Yes, device functioning

MassDOT Crash Data 2013-2017
Route 1A / School Street

Crash Date	Day of Week	Crash Time	Crash Severity	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Vehicle Configuration	Driver Contributing Codes	Hit & Run	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway	Distance And Direction From Intersection	Traffic Control Device Type	Traffic Device Functioning
3/17/2013	Sunday	1:00 AM	Property damage only (none injured)	0	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:N / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(No improper driving) D2:(Other improper action)	No hit and run	Dry	Dark - lighted roadway	Cloudy / Cloudy		RANTOUL ST Rte 1A N / SCHOOL ST		Traffic control signal	Yes, device functioning
3/28/2013	Thursday	3:20 PM	Non-fatal injury	3	0	2	Head-on	V1: Turning left / V2:Travelling straight ahead	V1:E / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:() D2:()	No hit and run	Dry	Daylight	Cloudy / Cloudy		RANTOUL ST / SCHOOL ST		Traffic control signal	Yes, device functioning
7/26/2013	Friday	10:50 AM	Not Reported	0	0	2	Sideswipe, same direction	V1: Not reported / V2:Parked	V1:8 / V2:N	V1:(Collision with parked motor vehicle) V2:(Collision with parked motor vehicle)	V1:() V2:(Passenger car)	D1:() D2:()	Yes, hit and run	Wet	Daylight	Rain/Rain	29	RANTOUL ST		No controls	Not reported
11/18/2013	Monday	6:25 PM	Property damage only (none injured)	0	0	2	Angle	V1: Entering traffic lane / V2:Travelling straight ahead	V1:E / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(Failed to yield right of way) D2:(No improper driving)	No hit and run	Dry	Dark - lighted roadway	Clear / Clear	24	RANTOUL ST Rte 1A S	100 feet S of	No controls	Yes, device functioning
1/24/2014	Friday	10:35 PM	Property damage only (none injured)	0	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:N / V2:N	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving) D2:(Inattention)	No hit and run	Dry	Dark - lighted roadway	Cloudy / Cloudy		RANTOUL STREET / SCHOOL STREET		Traffic control signal	Yes, device functioning
6/21/2015	Sunday	7:15 PM	Property damage only (none injured)	0	0	2	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:N / V2:W	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(No improper driving) D2:(Disregarded traffic signs, signals, road markings)	No hit and run	Dry	Daylight	Clear / Clear		SCHOOL ST / RANTOUL ST		Traffic control signal	Yes, device functioning
9/4/2015	Friday	4:45 PM	Property damage only (none injured)	0	0	2	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:N / V2:N	V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving) D2:(Disregarded traffic signs, signals, road markings)	No hit and run	Dry	Daylight	Clear / Clear		RANTOUL ST / SCHOOL ST		Traffic control signal	Yes, device functioning
3/5/2016	Saturday	10:16 AM	Property damage only (none injured)	0	0	2	Angle	V1: Travelling straight ahead / V2:Turning left	V1:S / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Passenger car)	D1:(Disregarded traffic signs, signals, road markings) D2:()	No hit and run	Dry	Daylight	Clear / Clear		SCHOOL ST / RANTOUL ST		Flashing traffic control signal	Yes, device functioning
3/20/2016	Sunday	12:35 AM	Not Reported	0	0	2	Rear-end	V1: Travelling straight ahead / V2:Slowing or stopped in traffic	V1:8 / V2:8	V1:(Collision with motor vehicle in traffic) V2:	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:() D2:()	No hit and run	Dry	Dark - lighted roadway	Clear / Clear		RANTOUL ST / SCHOOL ST		Traffic control signal	Yes, device functioning
3/31/2016	Thursday	8:00 AM	Property damage only (none injured)	0	0	2	Angle	V1: Turning left / V2:Travelling straight ahead	V1:E / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving) D2:(Disregarded traffic signs, signals, road markings)	No hit and run	Dry	Daylight	Clear / Clear		RANTOUL ST / SCHOOL ST		Traffic control signal	Yes, device functioning
7/3/2017	Monday	12:40 AM	Property damage only (none injured)	0	0	2	Angle	V1: Travelling straight ahead / V2:Parked	V1:8 / V2:8	V1:(Collision with parked motor vehicle) V2:	V1:(Passenger car) V2:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(Failure to keep in proper lane or running off road) D2:()	No hit and run	Wet	Dark - lighted roadway	Rain/Rain		RANTOUL ST / SCHOOL ST		No controls	Not reported

MassDOT Crash Data 2013-2017
Route 1A / Congress Street

Crash Date	Day of Week	Crash Time	Crash Severity	Number of NonFatal Injuries	Number of Fatal Injuries	Number of Vehicles	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Vehicle Configuration	Driver Contributing Codes	Non Motorist Type	Non Motorist Action	Hit & Run	Road Surface	Ambient Light	Weather Condition	Street Number	Roadway	Distance And Direction From Intersection	Landmark	Distance And Direction From Landmark	Traffic Control Device Type	Traffic Device Functioning
5/4/2013	Saturday	3:04 AM	Property damage only (none injured)	0	0	2	Sideswipe, opposite direction	V1: Parked / V2:Parked	V1:S / V2:E	V1:(Collision with parked motor vehicle) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(Fatigued/asleep) D2:(			No hit and run	Dry	Dark - lighted roadway	Clear / Clear	1	CABOT ST				No controls	Yes, device functioning
7/21/2014	Monday	3:30 PM	Non-fatal injury	1	0	1	Single vehicle crash	V1: Slowing or stopped in traffic	V1:E	V1:(Collision with cyclist)	V1:(Light truck(van, mini-van, panel, pickup, sport utility) with only four tires)	D1:(No improper driving)	P2:Pedalcyclist (bicycle, tricycle, unicycle, pedal car)	P2:Walking, running or cycling	No hit and run	Dry	Daylight	Clear / Clear		CABOT ST Rte 1A S / CONGRESS ST				Stop signs	Yes, device functioning
10/23/2015	Friday	4:57 PM	Property damage only (none injured)	0	0	2	Sideswipe, same direction	V1: Entering traffic lane / V2:Travelling straight ahead	V1:S / V2:S	V1:(Collision with motor vehicle in traffic) V2:(Collision with motor vehicle in traffic)	V1:(Passenger car) V2:(Passenger car)	D1:(Disregarded traffic signs, signals, road markings),(Failed to yield right of way) D2:(No improper driving)			No hit and run	Dry	Dusk	Clear / Cloudy		CABOT STREET Rte SR1A / CONGRESS STREET				Stop signs	Yes, device functioning

TRAFFIC IMPACT AND ACCESS STUDY

Mission Boathouse Restaurant – Beverly, Massachusetts

BACKGROUND DEVELOPMENT DATA

TRAFFIC IMPACT AND ACCESS STUDY

Mission Boathouse Restaurant - Beverly, Massachusetts

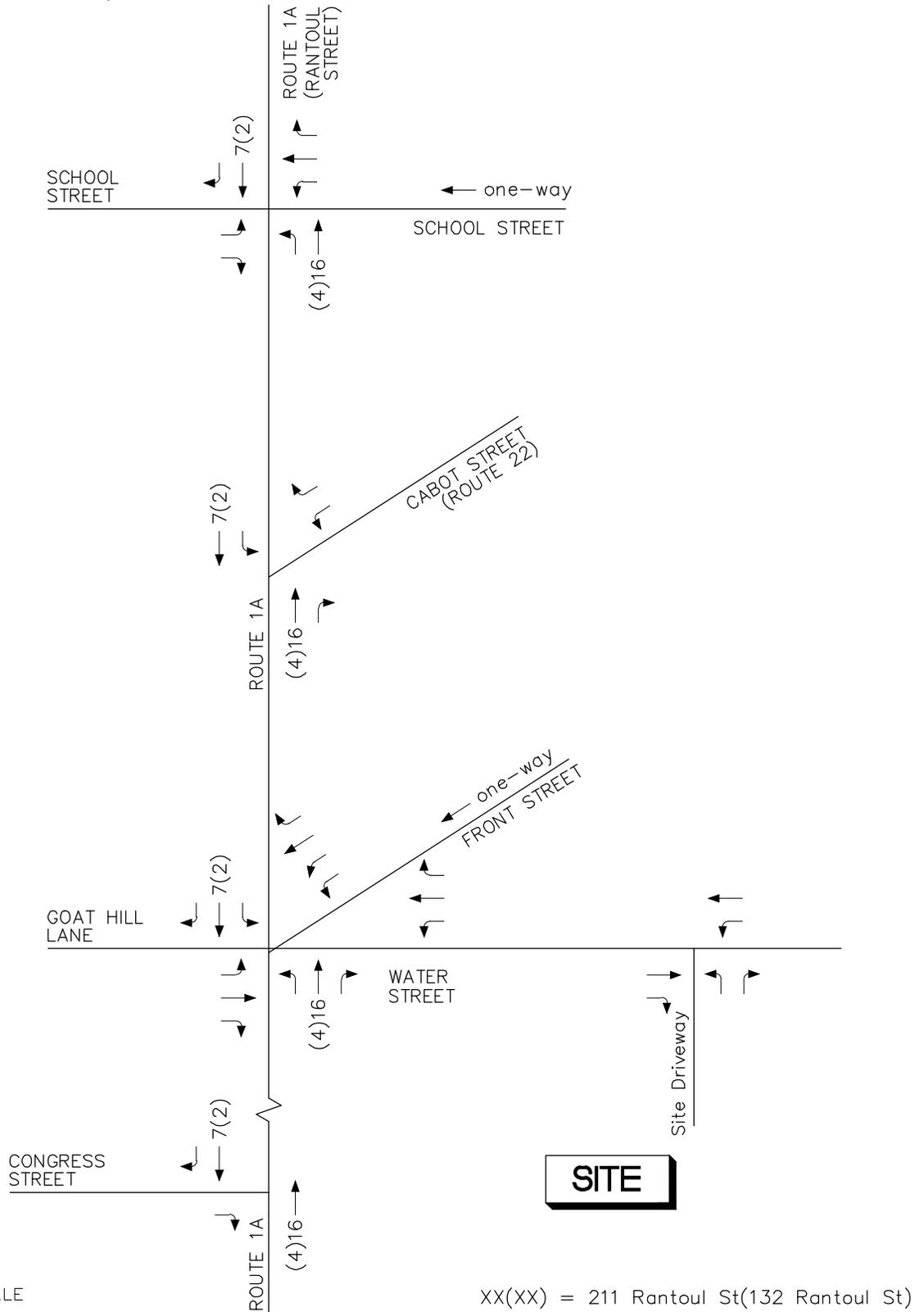


Figure A-1
 211 Rantoul Street and
 132 Rantoul Street
 Weekday PM
 Peak Hour Traffic Volumes

TRAFFIC IMPACT AND ACCESS STUDY

Mission Boathouse Restaurant - Beverly, Massachusetts

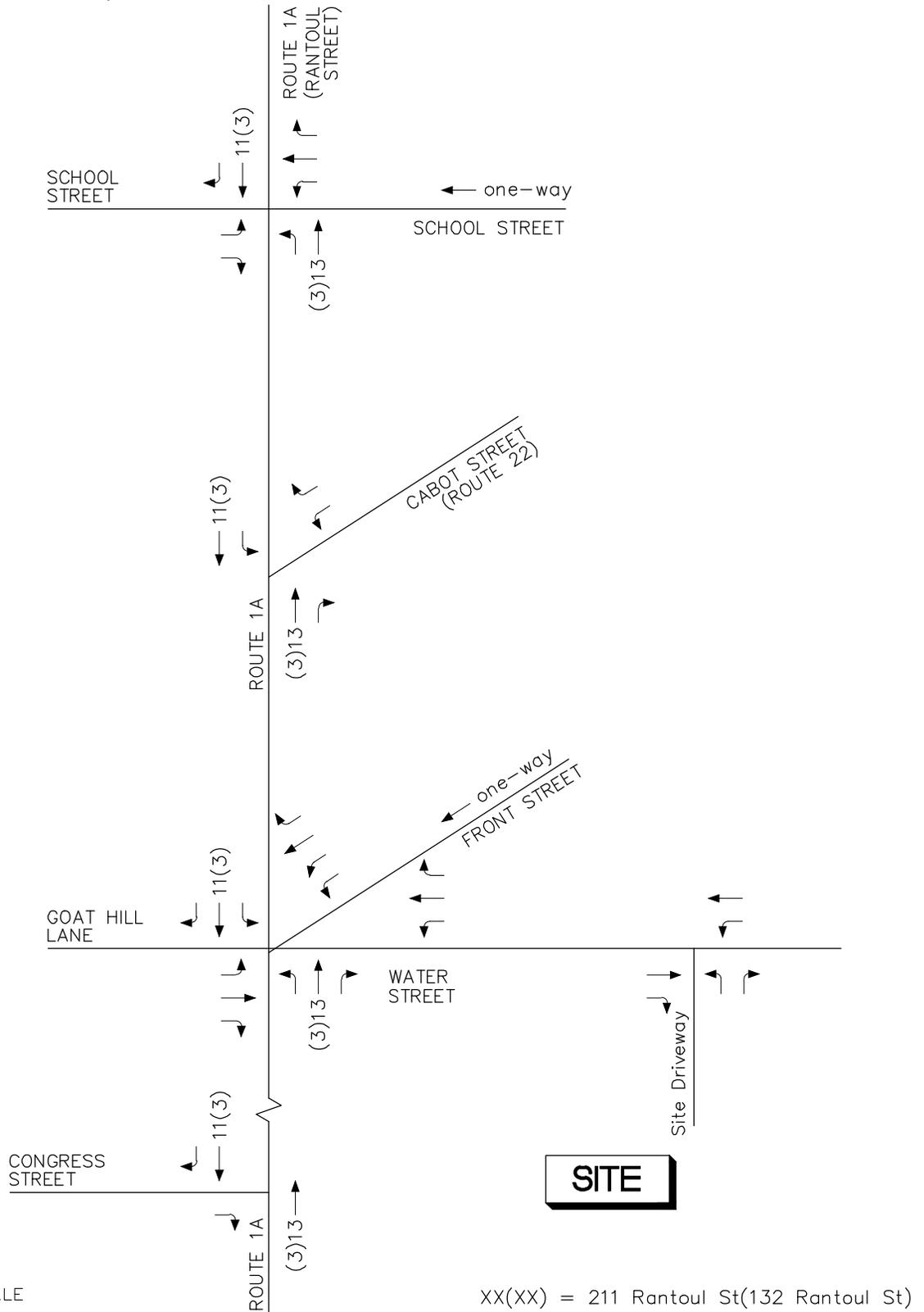


Figure A-2
211 Rantoul Street and
132 Rantoul Street
Saturday MIDDAY
Peak Hour Traffic Volumes

TRAFFIC IMPACT AND ACCESS STUDY

Mission Boathouse Restaurant – Beverly, Massachusetts

TRIP-GENERATION CALCULATIONS

Site-Generated Trip Summary

	Total Trips			Walking/Bike			Total Vehicle Trips Total	Pass-By			Primary Trips		
	LUC 931	LUC 933	Total	LUC 931	LUC 933	Total		LUC 931	LUC 933	Total	LUC 931	LUC 933	Total
Weekday Daily													
Entering	455	104	559	0	52	52	507	200	22	222	255	30	285
Exiting	<u>455</u>	<u>104</u>	<u>559</u>	<u>0</u>	<u>52</u>	<u>52</u>	<u>507</u>	<u>200</u>	<u>22</u>	<u>222</u>	<u>255</u>	<u>30</u>	<u>285</u>
Total	910	208	1118	0	104	104	1014	400	44	444	510	60	570
Weekday PM													
Entering	66	8	74	0	4	4	70	22	2	24	44	2	46
Exiting	<u>32</u>	<u>9</u>	<u>41</u>	<u>0</u>	<u>5</u>	<u>5</u>	<u>36</u>	<u>22</u>	<u>2</u>	<u>24</u>	<u>10</u>	<u>2</u>	<u>12</u>
Total	98	17	115	0	9	9	106	44	4	48	54	4	58
Saturday Daily													
Entering	450	209	659	0	105	105	554	198	45	243	252	59	311
Exiting	<u>450</u>	<u>209</u>	<u>659</u>	<u>0</u>	<u>105</u>	<u>105</u>	<u>554</u>	<u>198</u>	<u>45</u>	<u>243</u>	<u>252</u>	<u>59</u>	<u>311</u>
Total	900	418	1318	0	210	210	1108	396	90	486	504	118	622
Saturday Midday													
Entering	68	16	84	0	8	8	76	26	3	29	42	5	47
Exiting	<u>48</u>	<u>17</u>	<u>65</u>	<u>0</u>	<u>9</u>	<u>9</u>	<u>56</u>	<u>26</u>	<u>3</u>	<u>29</u>	<u>22</u>	<u>5</u>	<u>27</u>
Total	116	33	149	0	17	17	132	52	6	58	64	10	74

0% 50%
 assume 50% for
 public access trips on

44% 43%
 assumed from LUC 932

Institute of Transportation Engineers (ITE)
Land Use Code (LUC) 931 - Quality Restaurant
General Urban/Suburban

Average Vehicle Trips Ends vs: Seats
Independent Variable (X): 350

AVERAGE WEEKDAY DAILY

$T = 2.6 * (X)$
 $T = 2.60 * 350$
 $T = 910.00$
 $T = 910$ vehicle trips
with 50% (455 vpd) entering and 50% (455 vpd) exiting.

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

$T = 0.02 * (X)$
 $T = 0.02 * 350$
 $T = 7.00$
 $T = 7$ vehicle trips
*with 50% (4 vph) entering and 50% (3 vph) exiting.
**Based on ITE LUC 931 Average Weekday Daily Traffic*

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

$T = 0.28 * (X)$
 $T = 0.28 * 350$
 $T = 98.00$
 $T = 98$ vehicle trips
with 67% (66 vph) entering and 33% (32 vph) exiting.

SATURDAY DAILY

$T = 2.57 * (X)$
 $T = 2.57 * 350$
 $T = 899.50$
 $T = 900$ vehicle trips
with 50% (450 vpd) entering and 50% (450 vpd) exiting.

SATURDAY PEAK HOUR OF GENERATOR

$T = 0.33 * (X)$
 $T = 0.33 * 350$
 $T = 115.50$
 $T = 116$ vehicle trips
with 59% (68 vph) entering and 41% (48 vph) exiting.

Institute of Transportation Engineers (ITE)

Land Use Code (LUC) 933 - Fast-Food Restaurant without Drive-Through Window

General Urban/Suburban

Average Vehicle Trips Ends vs: 1,000 Sq. Ft. Gross Floor Area

Independent Variable (X): 0.600

AVERAGE WEEKDAY DAILY

$$T = 346.23 * (X)$$

$$T = 346.23 * 0.600$$

$$T = 207.74$$

T = 208 vehicle trips

with 50% (104 vpd) entering and 50% (104 vpd) exiting.

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$T = 25.10 * (X)$$

$$T = 25.1 * 0.600$$

$$T = 15.06$$

T = 15 vehicle trips

with 60% (9 vph) entering and 40% (6 vph) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$T = 28.34 * (X)$$

$$T = 28.34 * 0.600$$

$$T = 17.00$$

T = 17 vehicle trips

with 50% (8 vph) entering and 50% (9 vph) exiting.

SATURDAY DAILY

$$T = 696.00 * (X)$$

$$T = 696.00 * 0.600$$

$$T = 417.60$$

T = 418 vehicle trips

with 50% (209 vpd) entering and 50% (209 vpd) exiting.

SATURDAY PEAK HOUR OF GENERATOR

$$T = 54.60 * (X)$$

$$T = 54.60 * 0.600$$

$$T = 32.76$$

T = 33 vehicle trips

with 49% (16 vph) entering and 51% (17 vph) exiting.

Trip Distribution

	From	
	PM	Saturday
Route 1A N	455	397
Route 1A S	1243	876
Water St E	159	191
Cabot St N	315	323
TOTAL	2172	1787

	To	
	PM	Saturday
Route 1A N	565	424
Route 1A S	970	925
Water St E	204	184
Cabot St N	454	354
TOTAL	2193	1887

	PM	Saturday	Average	USE
Route 1A N	21%	22%	22%	20%
Route 1A S	57%	49%	53%	55%
Water St E	7%	11%	9%	10%
Cabot St N	15%	18%	16%	15%
TOTAL	100%	100%	100%	100%

	PM	Saturday	Average	USE
Route 1A N	26%	22%	24%	25%
Route 1A S	44%	49%	47%	45%
Water St E	9%	10%	10%	10%
Cabot St N	21%	19%	20%	20%
TOTAL	100%	100%	100%	100%

	Average	USE
Route 1A N	23%	25%
Route 1A S	50%	50%
Water St E	9%	10%
Cabot St N	18%	15%
TOTAL	100%	100%

TRAFFIC IMPACT AND ACCESS STUDY

Mission Boathouse Restaurant – Beverly, Massachusetts

CAPACITY ANALYSIS METHODOLOGY

CAPACITY ANALYSIS METHODOLOGY

A primary result of capacity analysis is the assignment of levels of service to traffic facilities under various traffic flow conditions. The capacity analysis methodology is based on the concepts and procedures in the *Highway Capacity Manual* (HCM).¹¹ The concept of level of service (LOS) is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F the worst. Since the level of service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year. A description of the operating condition under each level of service is provided below:

- *LOS A* describes conditions with little to no delay to motorists.
- *LOS B* represents a desirable level with relatively low delay to motorists.
- *LOS C* describes conditions with average delays to motorists.
- *LOS D* describes operations where the influence of congestion becomes more noticeable. Delays are still within an acceptable range.
- *LOS E* represents operating conditions with high delay values. This level is considered by many agencies to be the limit of acceptable delay.
- *LOS F* is considered to be unacceptable to most drivers with high delay values that often occur, when arrival flow rates exceed the capacity of the intersection.

Unsignalized Intersections

Levels of service for unsignalized intersections are calculated using the operational analysis methodology of the HCM. The procedure accounts for lane configuration on both the minor and major street approaches, conflicting traffic stream volumes, and the type of intersection control (STOP, YIELD, or all-way STOP control). The definition of level of service for unsignalized

¹¹ *Highway Capacity Manual 6th Edition*, Transportation Research Board; Washington, D.C.; 2016.

TRAFFIC IMPACT AND ACCESS STUDY

Mission Boathouse Restaurant – Beverly, Massachusetts

intersections is a function of average *control* delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The level-of-service criteria for unsignalized intersections are shown in Table A-1.

Signalized Intersections

Levels of service for signalized intersections are also calculated using the operational analysis methodology of the HCM. The methodology for signalized intersections assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on average *control* delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Table A-1 summarizes the relationship between level of service and average control delay.

Table A-1
LEVEL-OF-SERVICE CRITERIA FOR INTERSECTIONS

Level of Service	Unsignalized Intersection Criteria	Signalized Intersection Criteria
	Average Control Delay (Seconds per Vehicle) ¹	Average Control Delay (Seconds per Vehicle) ²
A	≤10	≤10
B	>10 and ≤15	>10 and ≤20
C	>15 and ≤25	>20 and ≤35
D	>25 and ≤35	>35 and ≤55
E	>35 and ≤50	>55 and ≤80
F	>50 or v/c >1.0	>80 or v/c >1.0

Source:

¹ *Highway Capacity Manual 6th Edition*, Transportation Research Board; Washington, D.C.; 2016. Pages 19-16, 20-6, and 21-9.

² *Highway Capacity Manual 2000*, Transportation Research Board; Washington, D.C.; 2000. Pages 10-16 and 17-2.

For signalized intersections, this delay criterion may be applied in assigning level-of-service designations to individual lane groups, to individual intersection approaches, or to the entire intersection. For unsignalized intersections, this delay criterion may be applied in assigning level-of-service designations to individual lane groups or to individual intersection approaches.

TRAFFIC IMPACT AND ACCESS STUDY

Mission Boathouse Restaurant – Beverly, Massachusetts

CAPACITY AND QUEUE ANALYSIS WORKSHEETS

Lanes, Volumes, Timings
1: Route 1A & School Street

2019 Existing
Timing Plan: Weekday PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	0	84	0	43	26	86	478	0	0	432	23
Future Volume (vph)	61	0	84	0	43	26	86	478	0	0	432	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	11	11	11	11	11	11
Satd. Flow (prot)	0	1932	0	0	1997	0	0	1772	0	0	1807	0
Flt Permitted		0.830						0.862				
Satd. Flow (perm)	0	1638	0	0	1997	0	0	1539	0	0	1807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		61			27						4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		429			340			500			313	
Travel Time (s)		11.7			9.3			13.6			8.5	
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	1%	0%	0%	4%	2%	3%	0%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	152	0	0	72	0	0	594	0	0	479	0
Turn Type	Perm	NA			NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)	11.5	11.5		11.5	11.5		11.5	11.5			11.5	
Total Split (s)	23.0	23.0		23.0	23.0		55.0	55.0			55.0	
Total Split (%)	23.0%	23.0%		23.0%	23.0%		55.0%	55.0%			55.0%	
Maximum Green (s)	18.5	18.5		18.5	18.5		50.5	50.5			50.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Recall Mode	None	None		None	None		C-Min	C-Min			C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		11.4			11.4			66.4			66.4	
Actuated g/C Ratio		0.11			0.11			0.66			0.66	
v/c Ratio		0.63			0.29			0.58			0.40	
Control Delay		36.7			29.0			16.0			11.9	
Queue Delay		0.0			0.0			0.7			0.0	
Total Delay		36.7			29.0			16.7			11.9	
LOS		D			C			B			B	
Approach Delay		36.7			29.0			16.7			11.9	
Approach LOS		D			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length:	100											
Actuated Cycle Length:	100											
Offset:	3 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Green											
Natural Cycle:	75											

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	22%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	25
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
 1: Route 1A & School Street

2019 Existing
 Timing Plan: Weekday PM

Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 17.9
 Intersection Capacity Utilization 80.5%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 1: Route 1A & School Street

 Ø2 (R)	 Ø4	 Ø9
55 s	23 s	22 s
 Ø6 (R)	 Ø8	
55 s	23 s	

Queues
1: Route 1A & School Street

2019 Existing
Timing Plan: Weekday PM

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	152	72	594	479
v/c Ratio	0.63	0.29	0.58	0.40
Control Delay	36.7	29.0	16.0	11.9
Queue Delay	0.0	0.0	0.7	0.0
Total Delay	36.7	29.0	16.7	11.9
Queue Length 50th (ft)	56	27	242	161
Queue Length 95th (ft)	115	64	427	276
Internal Link Dist (ft)	349	260	420	233
Turn Bay Length (ft)				
Base Capacity (vph)	352	391	1022	1201
Starvation Cap Reductn	0	0	167	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	0.18	0.69	0.40
Intersection Summary				

Lanes, Volumes, Timings
2: Route 1A & Cabot Street

2019 Existing
Timing Plan: Weekday PM

	↑	↗	↖	↓	↙	↘	Ø1	Ø4	Ø5	Ø8	Ø9
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR					
Lane Configurations	↑	↗		↑	↙↘						
Traffic Volume (vph)	556	454	0	516	308	7					
Future Volume (vph)	556	454	0	516	308	7					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Width (ft)	11	15	16	16	12	12					
Satd. Flow (prot)	1818	1759	0	2111	3454	0					
Flt Permitted					0.953						
Satd. Flow (perm)	1818	1759	0	2111	3454	0					
Right Turn on Red		Yes				Yes					
Satd. Flow (RTOR)		195			1						
Link Speed (mph)	25			25	25						
Link Distance (ft)	172			500	390						
Travel Time (s)	4.7			13.6	10.6						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94					
Heavy Vehicles (%)	1%	1%	0%	2%	1%	20%					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	591	483	0	549	335	0					
Turn Type	NA	Perm		NA	Prot						
Protected Phases	6			2	3		1	4	5	8	9
Permitted Phases		6									
Detector Phase	6	6		2	3						
Switch Phase											
Minimum Initial (s)	8.0	8.0		8.0	8.0		5.0	8.0	5.0	8.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		11.0	14.0	11.0	14.0	32.0
Total Split (s)	59.0	59.0		59.0	36.0		36.0	56.0	36.0	56.0	32.0
Total Split (%)	26.9%	26.9%		26.9%	16.4%		16%	26%	16%	26%	15%
Maximum Green (s)	53.0	53.0		53.0	30.0		30.0	50.0	30.0	50.0	29.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0						
Total Lost Time (s)	6.0	6.0		6.0	6.0						
Lead/Lag	Lead	Lead		Lag			Lead		Lag		
Lead-Lag Optimize?	Yes	Yes		Yes			Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	3.0	2.0	2.0	3.0
Recall Mode	Min	Min		Min	Min		None	None	None	None	None
Walk Time (s)											10.0
Flash Dont Walk (s)											19.0
Pedestrian Calls (#/hr)											16
Act Effct Green (s)	63.0	63.0		55.5	26.8						
Actuated g/C Ratio	0.37	0.37		0.33	0.16						
v/c Ratio	0.87	0.62		0.79	0.61						
Control Delay	20.4	10.5		65.8	75.4						
Queue Delay	4.4	4.4		52.0	0.0						
Total Delay	24.8	14.9		117.8	75.4						
LOS	C	B		F	E						
Approach Delay	20.3			117.8	75.4						
Approach LOS	C			F	E						

Intersection Summary

Area Type: Other

Cycle Length: 219

Actuated Cycle Length: 169.4

Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Lanes, Volumes, Timings
 2: Route 1A & Cabot Street

2019 Existing
 Timing Plan: Weekday PM

Intersection Signal Delay: 57.1
 Intersection Capacity Utilization 48.3%
 Analysis Period (min) 15

Intersection LOS: E
 ICU Level of Service A

Splits and Phases: 2: Route 1A & Cabot Street

#3 Ø1 36 s	#2 #3 Ø2 59 s	#2 #3 Ø3 36 s	#3 Ø4 56 s	Ø9 32 s
#2 #3 Ø6 59 s	#3 Ø5 36 s		#3 Ø8 56 s	

Queues
2: Route 1A & Cabot Street

2019 Existing
Timing Plan: Weekday PM

	↑	↗	↓	↙
Lane Group	NBT	NBR	SBT	SWL
Lane Group Flow (vph)	591	483	549	335
v/c Ratio	0.87	0.62	0.79	0.61
Control Delay	20.4	10.5	65.8	75.4
Queue Delay	4.4	4.4	52.0	0.0
Total Delay	24.8	14.9	117.8	75.4
Queue Length 50th (ft)	~815	0	662	200
Queue Length 95th (ft)	m#934	m7	#1046	288
Internal Link Dist (ft)	92		420	310
Turn Bay Length (ft)				
Base Capacity (vph)	676	776	692	641
Starvation Cap Reductn	45	216	201	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.94	0.86	1.12	0.52

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings
3: Route 1A & Goat Hill Lane/Water Street

2019 Existing
Timing Plan: Weekday PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	22	1	189	7	13	72	1010	161	20	799	1
Future Volume (vph)	15	22	1	189	7	13	72	1010	161	20	799	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	11	12	12	11	12	12
Storage Length (ft)	0		0	0		0	100		0	50		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1856	0	0	1726	0	1745	3465	0	1745	3539	0
Flt Permitted		0.886			0.748		0.950			0.950		
Satd. Flow (perm)	0	1678	0	0	1349	0	1745	3465	0	1745	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			1			8				
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		294			160			340			172	
Travel Time (s)		8.0			4.4			9.3			4.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	2%	2%	0%	2%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	222	0	77	1245	0	21	851	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		1	6		5	2 3	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		1	6		5	2 3	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		5.0	8.0		5.0		
Minimum Split (s)	14.0	14.0		14.0	14.0		11.0	14.0		11.0		
Total Split (s)	56.0	56.0		56.0	56.0		36.0	59.0		36.0		
Total Split (%)	25.6%	25.6%		25.6%	25.6%		16.4%	26.9%		16.4%		
Maximum Green (s)	50.0	50.0		50.0	50.0		30.0	53.0		30.0		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0		
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0		
Lead/Lag							Lead	Lead		Lag		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		2.0	2.0		2.0	3.0		2.0		
Recall Mode	None	None		None	None		None	Min		None		
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		33.1			33.1		12.3	63.0		10.8	88.6	
Actuated g/C Ratio		0.20			0.20		0.07	0.37		0.06	0.52	
v/c Ratio		0.12			0.84		0.61	0.96		0.19	0.46	
Control Delay		60.2			94.6		103.3	69.2		77.5	1.5	
Queue Delay		0.2			12.4		0.0	3.3		0.1	0.4	
Total Delay		60.4			107.0		103.3	72.5		77.6	1.9	
LOS		E			F		F	E		E	A	
Approach Delay		60.4			107.0			74.3			3.7	
Approach LOS		E			F			E			A	

Intersection Summary

Area Type: Other
Cycle Length: 219
Actuated Cycle Length: 169.4

Lanes, Volumes, Timings
 3: Route 1A & Goat Hill Lane/Water Street

2019 Existing
 Timing Plan: Weekday PM

Lane Group	Ø2	Ø3	Ø9
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Heavy Vehicles (%)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	3	9
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	8.0	8.0	7.0
Minimum Split (s)	14.0	14.0	32.0
Total Split (s)	59.0	36.0	32.0
Total Split (%)	27%	16%	15%
Maximum Green (s)	53.0	30.0	29.0
Yellow Time (s)	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		
Lead-Lag Optimize?	Yes		
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	Min	Min	None
Walk Time (s)			10.0
Flash Dont Walk (s)			19.0
Pedestrian Calls (#/hr)			16
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Lanes, Volumes, Timings
 3: Route 1A & Goat Hill Lane/Water Street

2019 Existing
 Timing Plan: Weekday PM

Natural Cycle: 145
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 51.9
 Intersection Capacity Utilization 70.5%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service C

Splits and Phases: 3: Route 1A & Goat Hill Lane/Water Street

#3 Ø1	#2 #3 Ø2	#2 #3 Ø3	#3 Ø4	Ø9
36 s	59 s	36 s	56 s	32 s
#2 #3 Ø6	#3 Ø5		#3 Ø8	
59 s	36 s		56 s	

Queues
3: Route 1A & Goat Hill Lane/Water Street

2019 Existing
Timing Plan: Weekday PM

						
Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	40	222	77	1245	21	851
v/c Ratio	0.12	0.84	0.61	0.96	0.19	0.46
Control Delay	60.2	94.6	103.3	69.2	77.5	1.5
Queue Delay	0.2	12.4	0.0	3.3	0.1	0.4
Total Delay	60.4	107.0	103.3	72.5	77.6	1.9
Queue Length 50th (ft)	41	268	94	~1008	22	5
Queue Length 95th (ft)	82	392	168	#1333	m32	7
Internal Link Dist (ft)	214	80		260		92
Turn Bay Length (ft)			100		50	
Base Capacity (vph)	519	417	323	1293	323	1948
Starvation Cap Reductn	0	0	0	0	74	557
Spillback Cap Reductn	209	168	0	29	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.89	0.24	0.98	0.08	0.61

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings
4: Route 1A & Congress Street

2019 Existing
Timing Plan: Weekday PM

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	  	
Traffic Volume (vph)	0	113	0	1243	1197	14
Future Volume (vph)	0	113	0	1243	1197	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	12	12
Satd. Flow (prot)	0	1863	0	3539	3533	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	3539	3533	0
Link Speed (mph)	25			25	35	
Link Distance (ft)	648			548	340	
Travel Time (s)	17.7			14.9	6.6	
Confl. Bikes (#/hr)		2				2
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	114	0	1256	1223	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 47.2% ICU Level of Service A
 Analysis Period (min) 15

HCM 6th TWSC
4: Route 1A & Congress Street

2019 Existing
Timing Plan: Weekday PM

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	113	0	1243	1197	14
Future Vol, veh/h	0	113	0	1243	1197	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	0	114	0	1256	1209	14

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	612	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	441	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	441	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	441	-	-
HCM Lane V/C Ratio	-	0.259	-	-
HCM Control Delay (s)	-	16	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	1	-	-

Lanes, Volumes, Timings
1: Route 1A & School Street

2019 Existing
Timing Plan: Saturday Mid

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	0	101	0	38	33	67	362	0	0	370	27
Future Volume (vph)	29	0	101	0	38	33	67	362	0	0	370	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	11	11	11	11	11	11
Satd. Flow (prot)	0	1830	0	0	1998	0	0	1774	0	0	1763	0
Flt Permitted		0.909						0.892				
Satd. Flow (perm)	0	1682	0	0	1998	0	0	1595	0	0	1763	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		103			31						4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		429			340			500			313	
Travel Time (s)		11.7			9.3			13.6			8.5	
Confl. Bikes (#/hr)			2			1						2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	1%	3%	0%	0%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	73	0	0	437	0	0	406	0
Turn Type	Perm	NA			NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)	11.5	11.5		11.5	11.5		11.5	11.5			11.5	
Total Split (s)	39.5	39.5		39.5	39.5		74.5	74.5			74.5	
Total Split (%)	29.0%	29.0%		29.0%	29.0%		54.8%	54.8%			54.8%	
Maximum Green (s)	35.0	35.0		35.0	35.0		70.0	70.0			70.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Recall Mode	None	None		None	None		Min	Min			Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		8.7			8.7			26.3			26.3	
Actuated g/C Ratio		0.17			0.17			0.51			0.51	
v/c Ratio		0.36			0.20			0.54			0.45	
Control Delay		13.2			18.5			14.3			12.5	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		13.2			18.5			14.3			12.5	
LOS		B			B			B			B	
Approach Delay		13.2			18.5			14.3			12.5	
Approach LOS		B			B			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length:	136											
Actuated Cycle Length:	51.5											
Natural Cycle:	60											
Control Type:	Actuated-Uncoordinated											

Lane Group	Ø9
<hr/>	
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	16%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	20
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
<hr/>	
Intersection Summary	
<hr/>	

Lanes, Volumes, Timings
 1: Route 1A & School Street

2019 Existing
 Timing Plan: Saturday Mid

Maximum v/c Ratio: 0.54
 Intersection Signal Delay: 13.8
 Intersection Capacity Utilization 69.6%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 1: Route 1A & School Street

 74.5 s	 39.5 s	 22 s
 74.5 s	 39.5 s	

Queues
1: Route 1A & School Street

2019 Existing
Timing Plan: Saturday Mid

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	133	73	437	406
v/c Ratio	0.36	0.20	0.54	0.45
Control Delay	13.2	18.5	14.3	12.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	13.2	18.5	14.3	12.5
Queue Length 50th (ft)	6	8	42	36
Queue Length 95th (ft)	61	54	245	210
Internal Link Dist (ft)	349	260	420	233
Turn Bay Length (ft)				
Base Capacity (vph)	1268	1482	1560	1724
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.10	0.05	0.28	0.24
Intersection Summary				

Lanes, Volumes, Timings
2: Route 1A & Cabot Street

2019 Existing
Timing Plan: Saturday Mid

											
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	Ø1	Ø4	Ø5	Ø8	Ø9
Lane Configurations					  						
Traffic Volume (vph)	424	354	0	471	317	6					
Future Volume (vph)	424	354	0	471	317	6					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Width (ft)	11	15	16	16	12	12					
Satd. Flow (prot)	1783	1759	0	2091	3433	0					
Flt Permitted					0.953						
Satd. Flow (perm)	1783	1721	0	2091	3433	0					
Right Turn on Red		Yes				Yes					
Satd. Flow (RTOR)		199			1						
Link Speed (mph)	25			25	25						
Link Distance (ft)	172			500	390						
Travel Time (s)	4.7			13.6	10.6						
Confl. Bikes (#/hr)		1				1					
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97					
Heavy Vehicles (%)	3%	1%	0%	3%	2%	0%					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	437	365	0	486	333	0					
Turn Type	NA	Perm		NA	Prot						
Protected Phases	6			2	3		1	4	5	8	9
Permitted Phases		6									
Detector Phase	6	6		2	3						
Switch Phase											
Minimum Initial (s)	8.0	8.0		8.0	8.0		5.0	8.0	5.0	8.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0		11.0	14.0	11.0	14.0	32.0
Total Split (s)	59.0	59.0		59.0	36.0		36.0	56.0	36.0	56.0	32.0
Total Split (%)	26.9%	26.9%		26.9%	16.4%		16%	26%	16%	26%	15%
Maximum Green (s)	53.0	53.0		53.0	30.0		30.0	50.0	30.0	50.0	29.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0						
Total Lost Time (s)	6.0	6.0		6.0	6.0						
Lead/Lag	Lead	Lead		Lag			Lead		Lag		
Lead-Lag Optimize?	Yes	Yes		Yes			Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		2.0	3.0	2.0	2.0	3.0
Recall Mode	Min	Min		Min	Min		None	None	None	None	None
Walk Time (s)											10.0
Flash Dont Walk (s)											19.0
Pedestrian Calls (#/hr)											16
Act Effct Green (s)	56.1	56.1		56.7	25.7						
Actuated g/C Ratio	0.35	0.35		0.35	0.16						
v/c Ratio	0.70	0.50		0.66	0.60						
Control Delay	16.3	2.2		56.4	71.5						
Queue Delay	0.4	1.0		8.1	0.0						
Total Delay	16.8	3.2		64.5	71.5						
LOS	B	A		E	E						
Approach Delay	10.6			64.5	71.5						
Approach LOS	B			E	E						

Intersection Summary

Area Type: Other
 Cycle Length: 219
 Actuated Cycle Length: 159.9
 Natural Cycle: 115
 Control Type: Actuated-Uncoordinated

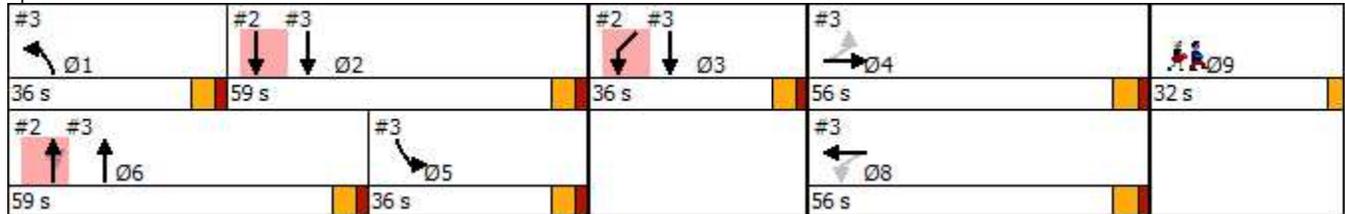
Lanes, Volumes, Timings
 2: Route 1A & Cabot Street

2019 Existing
 Timing Plan: Saturday Mid

Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 39.3
 Intersection Capacity Utilization 44.0%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service A

Splits and Phases: 2: Route 1A & Cabot Street



Queues
2: Route 1A & Cabot Street

2019 Existing
Timing Plan: Saturday Mid

	↑	↗	↓	↙
Lane Group	NBT	NBR	SBT	SWL
Lane Group Flow (vph)	437	365	486	333
v/c Ratio	0.70	0.50	0.66	0.60
Control Delay	16.3	2.2	56.4	71.5
Queue Delay	0.4	1.0	8.1	0.0
Total Delay	16.8	3.2	64.5	71.5
Queue Length 50th (ft)	62	0	532	191
Queue Length 95th (ft)	#755	2	#801	276
Internal Link Dist (ft)	92		420	310
Turn Bay Length (ft)				
Base Capacity (vph)	632	739	749	690
Starvation Cap Reductn	30	175	221	0
Spillback Cap Reductn	0	0	33	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.73	0.65	0.92	0.48

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings
3: Route 1A & Goat Hill Lane/Water Street

2019 Existing
Timing Plan: Saturday Mid

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	24	1	174	4	37	34	723	119	41	738	8
Future Volume (vph)	18	24	1	174	4	37	34	723	119	41	738	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	11	11	12	12	11	12	12
Storage Length (ft)	0		0	0		0	100		0	50		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1731	0	0	1692	0	1694	3465	0	1711	3527	0
Flt Permitted		0.868			0.762		0.950			0.950		
Satd. Flow (perm)	0	1535	0	0	1342	0	1694	3465	0	1711	3527	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			4			8			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		294			160			340			172	
Travel Time (s)		8.0			4.4			9.3			4.7	
Confl. Bikes (#/hr)			7			2						7
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	6%	4%	100%	1%	0%	5%	3%	2%	2%	2%	2%	13%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	217	0	34	850	0	41	753	0
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		1	6		5	2 3	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		1	6		5	2 3	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		5.0	8.0		5.0		
Minimum Split (s)	14.0	14.0		14.0	14.0		11.0	14.0		11.0		
Total Split (s)	56.0	56.0		56.0	56.0		36.0	59.0		36.0		
Total Split (%)	25.6%	25.6%		25.6%	25.6%		16.4%	26.9%		16.4%		
Maximum Green (s)	50.0	50.0		50.0	50.0		30.0	53.0		30.0		
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0		
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0		
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0		
Lead/Lag							Lead	Lead		Lag		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		2.0	2.0		2.0	3.0		2.0		
Recall Mode	None	None		None	None		None	Min		None		
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		31.0			31.0		8.1	56.1		8.7	88.8	
Actuated g/C Ratio		0.19			0.19		0.05	0.35		0.05	0.56	
v/c Ratio		0.14			0.83		0.40	0.70		0.44	0.38	
Control Delay		59.0			89.2		98.7	54.6		91.0	1.3	
Queue Delay		0.0			0.5		0.0	0.0		0.0	0.3	
Total Delay		59.1			89.7		98.7	54.6		91.1	1.6	
LOS		E			F		F	D		F	A	
Approach Delay		59.1			89.7			56.3			6.2	
Approach LOS		E			F			E			A	

Intersection Summary

Area Type: Other
Cycle Length: 219

Lanes, Volumes, Timings
 3: Route 1A & Goat Hill Lane/Water Street

2019 Existing
 Timing Plan: Saturday Mid

Lane Group	Ø2	Ø3	Ø9
Lane Configurations			
Traffic Volume (vph)			
Future Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	3	9
Permitted Phases			
Detector Phase			
Switch Phase			
Minimum Initial (s)	8.0	8.0	7.0
Minimum Split (s)	14.0	14.0	32.0
Total Split (s)	59.0	36.0	32.0
Total Split (%)	27%	16%	15%
Maximum Green (s)	53.0	30.0	29.0
Yellow Time (s)	4.0	4.0	3.0
All-Red Time (s)	2.0	2.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lag		
Lead-Lag Optimize?	Yes		
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	Min	Min	None
Walk Time (s)			10.0
Flash Dont Walk (s)			19.0
Pedestrian Calls (#/hr)			16
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

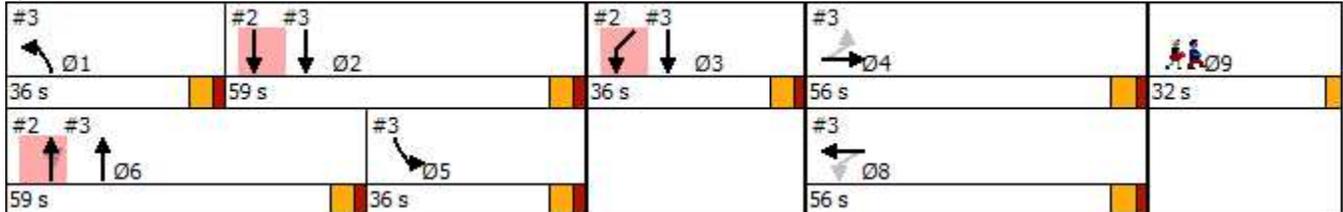
Lanes, Volumes, Timings
 3: Route 1A & Goat Hill Lane/Water Street

2019 Existing
 Timing Plan: Saturday Mid

Actuated Cycle Length: 159.9
 Natural Cycle: 115
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 39.6
 Intersection Capacity Utilization 61.7%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service B

Splits and Phases: 3: Route 1A & Goat Hill Lane/Water Street



Queues
3: Route 1A & Goat Hill Lane/Water Street

2019 Existing
Timing Plan: Saturday Mid

						
Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	43	217	34	850	41	753
v/c Ratio	0.14	0.83	0.40	0.70	0.44	0.38
Control Delay	59.0	89.2	98.7	54.6	91.0	1.3
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.3
Total Delay	59.1	89.7	98.7	54.6	91.1	1.6
Queue Length 50th (ft)	42	249	40	496	50	5
Queue Length 95th (ft)	85	367	90	#694	m79	5
Internal Link Dist (ft)	214	80		260		92
Turn Bay Length (ft)			100		50	
Base Capacity (vph)	514	452	340	1235	343	2073
Starvation Cap Reductn	0	0	0	0	32	629
Spillback Cap Reductn	60	53	0	5	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.54	0.10	0.69	0.13	0.52

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings
4: Route 1A & Congress Street

2019 Existing
Timing Plan: Saturday Mid

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	  	
Traffic Volume (vph)	0	85	0	876	994	12
Future Volume (vph)	0	85	0	876	994	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	12	12
Satd. Flow (prot)	0	1863	0	3539	3568	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	3539	3568	0
Link Speed (mph)	25			25	35	
Link Distance (ft)	648			548	340	
Travel Time (s)	17.7			14.9	6.6	
Confl. Bikes (#/hr)		30				30
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	2%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	91	0	942	1082	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 39.8%
 Analysis Period (min) 15
 ICU Level of Service A

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	85	0	876	994	12
Future Vol, veh/h	0	85	0	876	994	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	2	1	0
Mvmt Flow	0	91	0	942	1069	13

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	541	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	491	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	491	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	491	-	-
HCM Lane V/C Ratio	-	0.186	-	-
HCM Control Delay (s)	-	14	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.7	-	-

Lanes, Volumes, Timings
1: Route 1A & School Street

2026 No-Build
Timing Plan: Weekday PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	0	87	0	45	27	89	515	0	0	456	24
Future Volume (vph)	63	0	87	0	45	27	89	515	0	0	456	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	11	11	11	11	11	11
Satd. Flow (prot)	0	1932	0	0	1999	0	0	1773	0	0	1807	0
Flt Permitted		0.830						0.857				
Satd. Flow (perm)	0	1637	0	0	1999	0	0	1530	0	0	1807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		62			26						4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		429			340			500			313	
Travel Time (s)		11.7			9.3			13.6			8.5	
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	1%	0%	0%	4%	2%	3%	0%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	158	0	0	75	0	0	636	0	0	505	0
Turn Type	Perm	NA			NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)	11.5	11.5		11.5	11.5		11.5	11.5			11.5	
Total Split (s)	23.0	23.0		23.0	23.0		55.0	55.0			55.0	
Total Split (%)	23.0%	23.0%		23.0%	23.0%		55.0%	55.0%			55.0%	
Maximum Green (s)	18.5	18.5		18.5	18.5		50.5	50.5			50.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Recall Mode	None	None		None	None		C-Min	C-Min			C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		11.7			11.7			66.1			66.1	
Actuated g/C Ratio		0.12			0.12			0.66			0.66	
v/c Ratio		0.64			0.29			0.63			0.42	
Control Delay		37.0			29.7			17.7			12.4	
Queue Delay		0.0			0.0			0.9			0.0	
Total Delay		37.0			29.7			18.5			12.4	
LOS		D			C			B			B	
Approach Delay		37.0			29.7			18.5			12.4	
Approach LOS		D			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length:	100											
Actuated Cycle Length:	100											
Offset:	3 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Green											
Natural Cycle:	80											

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	22%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	25
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
 1: Route 1A & School Street

2026 No-Build
 Timing Plan: Weekday PM

Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 19.0
 Intersection Capacity Utilization 84.2%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service E

Splits and Phases: 1: Route 1A & School Street

 Ø2 (R) 55 s	 Ø4 23 s	 Ø9 22 s
 Ø6 (R) 55 s	 Ø8 23 s	

Queues
1: Route 1A & School Street

2026 No-Build
Timing Plan: Weekday PM

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	158	75	636	505
v/c Ratio	0.64	0.29	0.63	0.42
Control Delay	37.0	29.7	17.7	12.4
Queue Delay	0.0	0.0	0.9	0.0
Total Delay	37.0	29.7	18.5	12.4
Queue Length 50th (ft)	59	29	275	175
Queue Length 95th (ft)	118	67	#497	300
Internal Link Dist (ft)	349	260	420	233
Turn Bay Length (ft)				
Base Capacity (vph)	353	391	1012	1196
Starvation Cap Reductn	0	0	152	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.19	0.74	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings
2: Route 1A & Cabot Street

2026 No-Build
Timing Plan: Weekday PM

	↑	↗	↘	↓	↙	↖	Ø1	Ø3	Ø4
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR			
Lane Configurations	↑	↗		↖	↙↘				
Traffic Volume (vph)	596	470	0	543	319	7			
Future Volume (vph)	596	470	0	543	319	7			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	12	12	11	11	11	11			
Satd. Flow (prot)	1881	1599	0	1801	3338	0			
Flt Permitted					0.953				
Satd. Flow (perm)	1881	1599	0	1801	3338	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)		511			3				
Link Speed (mph)	25			25	25				
Link Distance (ft)	172			500	390				
Travel Time (s)	4.7			13.6	10.6				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Heavy Vehicles (%)	1%	1%	0%	2%	1%	20%			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	648	511	0	590	355	0			
Turn Type	NA	Over		NA	Prot				
Protected Phases	2	1 3 4		2	1 3 4		1	3	4
Permitted Phases			2						
Detector Phase	2	1 3 4	2	2	1 3 4				
Switch Phase									
Minimum Initial (s)	10.0		10.0	10.0			4.0	10.0	10.0
Minimum Split (s)	19.0		19.0	19.0			18.0	19.0	22.0
Total Split (s)	50.0		50.0	50.0			21.5	21.0	22.5
Total Split (%)	43.5%		43.5%	43.5%			19%	18%	20%
Maximum Green (s)	41.0		41.0	41.0			16.0	12.0	17.0
Yellow Time (s)	3.0		3.0	3.0			3.0	3.0	3.0
All-Red Time (s)	6.0		6.0	6.0			2.5	6.0	2.5
Lost Time Adjust (s)	0.0			0.0					
Total Lost Time (s)	9.0			9.0					
Lead/Lag	Lag		Lag	Lag			Lead		
Lead-Lag Optimize?	Yes		Yes	Yes			Yes		
Vehicle Extension (s)	2.0		2.0	2.0			2.0	2.0	2.0
Recall Mode	Min		Min	Min			None	Min	None
Walk Time (s)	5.0		5.0	5.0			5.0	5.0	5.0
Flash Dont Walk (s)	2.0		2.0	2.0			7.5	2.0	11.5
Pedestrian Calls (#/hr)	4		4	4			3	15	5
Act Effct Green (s)	41.1	48.6		41.1	48.6				
Actuated g/C Ratio	0.39	0.47		0.39	0.47				
v/c Ratio	0.87	0.50		0.83	0.23				
Control Delay	30.2	17.4		41.2	16.7				
Queue Delay	9.3	11.9		9.3	0.0				
Total Delay	39.5	29.3		50.5	16.7				
LOS	D	C		D	B				
Approach Delay	35.0			50.5	16.7				
Approach LOS	C			D	B				

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 104.2

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

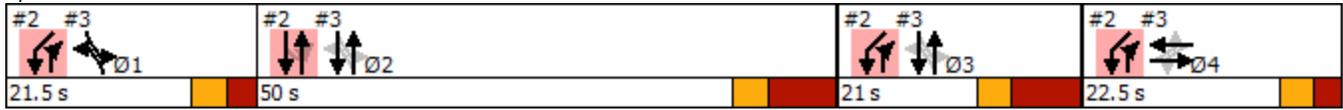
Lanes, Volumes, Timings
 2: Route 1A & Cabot Street

2026 No-Build
 Timing Plan: Weekday PM

Intersection Signal Delay: 36.2
 Intersection Capacity Utilization 69.8%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service C

Splits and Phases: 2: Route 1A & Cabot Street



Queues
2: Route 1A & Cabot Street

2026 No-Build
Timing Plan: Weekday PM

	↑	↗	↓	↙
Lane Group	NBT	NBR	SBT	SWL
Lane Group Flow (vph)	648	511	590	355
v/c Ratio	0.87	0.50	0.83	0.23
Control Delay	30.2	17.4	41.2	16.7
Queue Delay	9.3	11.9	9.3	0.0
Total Delay	39.5	29.3	50.5	16.7
Queue Length 50th (ft)	129	177	352	69
Queue Length 95th (ft)	#655	328	#603	98
Internal Link Dist (ft)	92		420	310
Turn Bay Length (ft)				
Base Capacity (vph)	741	1106	710	1827
Starvation Cap Reductn	76	568	97	0
Spillback Cap Reductn	0	0	8	133
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.97	0.95	0.96	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings
3: Route 1A & Goat Hill Lane/Water Street

2026 No-Build
Timing Plan: Weekday PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	22	1	195	7	13	72	1038	167	21	836	1
Future Volume (vph)	15	22	1	195	7	13	72	1038	167	21	836	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	12	12	10	11	11	10	11	11
Storage Length (ft)	0		0	0		0	100		0	80		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1796	0	1641	1690	0	1685	3349	0	1685	3421	0
Flt Permitted		0.859		0.730	0.738		0.277			0.143		
Satd. Flow (perm)	0	1573	0	1261	1298	0	491	3349	0	254	3421	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			5			24				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		294			160			340				172
Travel Time (s)		8.0			4.4			9.3				4.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	2%	2%	0%	2%	0%
Shared Lane Traffic (%)				45%								
Lane Group Flow (vph)	0	41	0	117	117	0	78	1310	0	23	910	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		1	2 3		1	2 3	
Permitted Phases	4			4			2 3			2 3		
Detector Phase	4	4		4	4		1	2 3		1	2 3	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		4.0			4.0		
Minimum Split (s)	22.0	22.0		22.0	22.0		18.0			18.0		
Total Split (s)	22.5	22.5		22.5	22.5		21.5			21.5		
Total Split (%)	19.6%	19.6%		19.6%	19.6%		18.7%			18.7%		
Maximum Green (s)	17.0	17.0		17.0	17.0		16.0			16.0		
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0			3.0		
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5			2.5		
Lost Time Adjust (s)		0.0		0.0	0.0		0.0			0.0		
Total Lost Time (s)		5.5		5.5	5.5		5.5			5.5		
Lead/Lag							Lead			Lead		
Lead-Lag Optimize?							Yes			Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0			2.0		
Recall Mode	None	None		None	None		None			None		
Walk Time (s)	5.0	5.0		5.0	5.0		5.0			5.0		
Flash Dont Walk (s)	11.5	11.5		11.5	11.5		7.5			7.5		
Pedestrian Calls (#/hr)	5	5		5	5		3			3		
Act Effct Green (s)		15.0		15.0	15.0		72.7	62.1		72.7	62.1	
Actuated g/C Ratio		0.14		0.14	0.14		0.70	0.60		0.70	0.60	
v/c Ratio		0.18		0.65	0.62		0.18	0.65		0.08	0.45	
Control Delay		41.1		59.9	55.2		4.9	16.3		1.9	4.9	
Queue Delay		1.4		0.0	52.9		0.0	0.5		0.0	5.4	
Total Delay		42.4		59.9	108.1		4.9	16.8		1.9	10.3	
LOS		D		E	F		A	B		A	B	
Approach Delay		42.4			84.0			16.1			10.1	
Approach LOS		D			F			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 104.2

Lanes, Volumes, Timings
 3: Route 1A & Goat Hill Lane/Water Street

2026 No-Build
 Timing Plan: Weekday PM

Lane Group	Ø2	Ø3
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	3
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	19.0	19.0
Total Split (s)	50.0	21.0
Total Split (%)	43%	18%
Maximum Green (s)	41.0	12.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	6.0	6.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	2.0	2.0
Recall Mode	Min	Min
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	2.0	2.0
Pedestrian Calls (#/hr)	4	15
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

Lanes, Volumes, Timings
 3: Route 1A & Goat Hill Lane/Water Street

2026 No-Build
 Timing Plan: Weekday PM

Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 20.5
 Intersection Capacity Utilization 66.2%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 3: Route 1A & Goat Hill Lane/Water Street

#2 #3  Ø1	#2 #3  Ø2	#2 #3  Ø3	#2 #3  Ø4
21.5 s	50 s	21 s	22.5 s

Queues
3: Route 1A & Goat Hill Lane/Water Street

2026 No-Build
Timing Plan: Weekday PM

							
Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	41	117	117	78	1310	23	910
v/c Ratio	0.18	0.65	0.62	0.18	0.65	0.08	0.45
Control Delay	41.1	59.9	55.2	4.9	16.3	1.9	4.9
Queue Delay	1.4	0.0	52.9	0.0	0.5	0.0	5.4
Total Delay	42.4	59.9	108.1	4.9	16.8	1.9	10.3
Queue Length 50th (ft)	23	76	73	13	283	1	50
Queue Length 95th (ft)	59	#156	145	24	415	m2	89
Internal Link Dist (ft)	214		80		260		92
Turn Bay Length (ft)				100		80	
Base Capacity (vph)	258	206	216	550	2007	410	2040
Starvation Cap Reductn	0	0	0	0	0	0	1053
Spillback Cap Reductn	124	0	103	0	288	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.57	1.04	0.14	0.76	0.06	0.92

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings
4: Route 1A & Congress Street

2026 No-Build
Timing Plan: Weekday PM

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	113	0	1277	1249	14
Future Volume (vph)	0	113	0	1277	1249	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	12	12
Satd. Flow (prot)	0	1863	0	3539	3533	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	3539	3533	0
Link Speed (mph)	25			25	35	
Link Distance (ft)	648			548	340	
Travel Time (s)	17.7			14.9	6.6	
Confl. Bikes (#/hr)		2				2
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	114	0	1290	1276	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 48.6% ICU Level of Service A
 Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	113	0	1277	1249	14
Future Vol, veh/h	0	113	0	1277	1249	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	0	114	0	1290	1262	14

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	638	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	424	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	424	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	424	-	-
HCM Lane V/C Ratio	-	0.269	-	-
HCM Control Delay (s)	-	16.6	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	1.1	-	-

Lanes, Volumes, Timings
1: Route 1A & School Street

2026 No-Build
Timing Plan: Saturday Mid

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	0	105	0	39	34	69	391	0	0	397	28
Future Volume (vph)	30	0	105	0	39	34	69	391	0	0	397	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	11	11	11	11	11	11
Satd. Flow (prot)	0	1830	0	0	1997	0	0	1776	0	0	1763	0
Flt Permitted		0.909						0.890				
Satd. Flow (perm)	0	1682	0	0	1997	0	0	1592	0	0	1763	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			31						4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		429			340			500			313	
Travel Time (s)		11.7			9.3			13.6			8.5	
Confl. Bikes (#/hr)			2			1						2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	1%	3%	0%	0%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	0	75	0	0	469	0	0	434	0
Turn Type	Perm	NA			NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)	11.5	11.5		11.5	11.5		11.5	11.5			11.5	
Total Split (s)	39.5	39.5		39.5	39.5		74.5	74.5			74.5	
Total Split (%)	29.0%	29.0%		29.0%	29.0%		54.8%	54.8%			54.8%	
Maximum Green (s)	35.0	35.0		35.0	35.0		70.0	70.0			70.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Recall Mode	None	None		None	None		Min	Min			Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		9.0			9.0			29.1			29.1	
Actuated g/C Ratio		0.16			0.16			0.53			0.53	
v/c Ratio		0.38			0.21			0.55			0.46	
Control Delay		14.1			20.1			14.1			12.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.1			20.1			14.1			12.2	
LOS		B			C			B			B	
Approach Delay		14.1			20.1			14.1			12.2	
Approach LOS		B			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length:	136											
Actuated Cycle Length:	54.6											
Natural Cycle:	60											
Control Type:	Actuated-Uncoordinated											

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	16%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	20
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
 1: Route 1A & School Street

2026 No-Build
 Timing Plan: Saturday Mid

Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 13.8
 Intersection Capacity Utilization 73.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 1: Route 1A & School Street

 Ø2	 Ø4	 Ø9
74.5 s	39.5 s	22 s
 Ø6	 Ø8	
74.5 s	39.5 s	

Queues
1: Route 1A & School Street

2026 No-Build
Timing Plan: Saturday Mid

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	138	75	469	434
v/c Ratio	0.38	0.21	0.55	0.46
Control Delay	14.1	20.1	14.1	12.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	14.1	20.1	14.1	12.2
Queue Length 50th (ft)	7	9	47	40
Queue Length 95th (ft)	66	59	269	227
Internal Link Dist (ft)	349	260	420	233
Turn Bay Length (ft)				
Base Capacity (vph)	1222	1424	1525	1689
Starvation Cap Reductn	0	0	23	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.11	0.05	0.31	0.26
Intersection Summary				

Lanes, Volumes, Timings
2: Route 1A & Cabot Street

2026 No-Build
Timing Plan: Saturday Mid

							Ø1	Ø3	Ø4
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR			
Lane Configurations					  				
Traffic Volume (vph)	455	367	0	502	328	6			
Future Volume (vph)	455	367	0	502	328	6			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	12	12	11	11	11	11			
Satd. Flow (prot)	1845	1599	0	1783	3319	0			
Flt Permitted					0.953				
Satd. Flow (perm)	1845	1599	0	1783	3319	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)		399			3				
Link Speed (mph)	25			25	25				
Link Distance (ft)	172			500	390				
Travel Time (s)	4.7			13.6	10.6				
Confl. Bikes (#/hr)		1				1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Heavy Vehicles (%)	3%	1%	0%	3%	2%	0%			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	495	399	0	546	364	0			
Turn Type	NA	Over		NA	Prot				
Protected Phases	2	1 3 4		2	1 3 4		1	3	4
Permitted Phases			2						
Detector Phase	2	1 3 4	2	2	1 3 4				
Switch Phase									
Minimum Initial (s)	10.0		10.0	10.0			4.0	10.0	10.0
Minimum Split (s)	19.0		19.0	19.0			18.0	19.0	22.0
Total Split (s)	41.0		41.0	41.0			18.0	21.0	22.5
Total Split (%)	40.0%		40.0%	40.0%			18%	20%	22%
Maximum Green (s)	32.0		32.0	32.0			12.5	12.0	17.0
Yellow Time (s)	3.0		3.0	3.0			3.0	3.0	3.0
All-Red Time (s)	6.0		6.0	6.0			2.5	6.0	2.5
Lost Time Adjust (s)	0.0			0.0					
Total Lost Time (s)	9.0			9.0					
Lead/Lag	Lag		Lag	Lag			Lead		
Lead-Lag Optimize?	Yes		Yes	Yes			Yes		
Vehicle Extension (s)	2.0		2.0	2.0			2.0	2.0	2.0
Recall Mode	Min		Min	Min			None	Min	None
Walk Time (s)	5.0		5.0	5.0			5.0	5.0	5.0
Flash Dont Walk (s)	2.0		2.0	2.0			7.5	2.0	11.5
Pedestrian Calls (#/hr)	7		7	7			3	14	3
Act Effct Green (s)	32.1	47.9		32.1	47.9				
Actuated g/C Ratio	0.34	0.51		0.34	0.51				
v/c Ratio	0.79	0.40		0.90	0.22				
Control Delay	27.6	14.6		51.3	13.0				
Queue Delay	2.4	3.8		1.0	0.0				
Total Delay	30.0	18.4		52.3	13.0				
LOS	C	B		D	B				
Approach Delay	24.9			52.3	13.0				
Approach LOS	C			D	B				

Intersection Summary

Area Type: Other
 Cycle Length: 102.5
 Actuated Cycle Length: 94.5
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated

Lanes, Volumes, Timings
 2: Route 1A & Cabot Street

2026 No-Build
 Timing Plan: Saturday Mid

Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 30.8
 Intersection Capacity Utilization 61.2%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 2: Route 1A & Cabot Street



Queues
2: Route 1A & Cabot Street

2026 No-Build
Timing Plan: Saturday Mid

	↑	↗	↓	↙
Lane Group	NBT	NBR	SBT	SWL
Lane Group Flow (vph)	495	399	546	364
v/c Ratio	0.79	0.40	0.90	0.22
Control Delay	27.6	14.6	51.3	13.0
Queue Delay	2.4	3.8	1.0	0.0
Total Delay	30.0	18.4	52.3	13.0
Queue Length 50th (ft)	107	115	313	58
Queue Length 95th (ft)	#457	253	#573	84
Internal Link Dist (ft)	92		420	310
Turn Bay Length (ft)				
Base Capacity (vph)	626	1078	605	1879
Starvation Cap Reductn	54	578	0	0
Spillback Cap Reductn	0	0	9	40
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.87	0.80	0.92	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings
3: Route 1A & Goat Hill Lane/Water Street

2026 No-Build
Timing Plan: Saturday Mid

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	24	1	180	4	38	34	766	123	42	779	8
Future Volume (vph)	18	24	1	180	4	38	34	766	123	42	779	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	12	12	10	11	11	10	11	11
Storage Length (ft)	0		0	0		0	100		0	80		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1676	0	1641	1614	0	1636	3349	0	1652	3410	0
Flt Permitted		0.841		0.726	0.783		0.295			0.247		
Satd. Flow (perm)	0	1440	0	1254	1303	0	508	3349	0	429	3410	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			22			26			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		294			160			340			172	
Travel Time (s)		8.0			4.4			9.3			4.7	
Confl. Bikes (#/hr)			7			2						7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	4%	100%	1%	0%	5%	3%	2%	2%	2%	2%	13%
Shared Lane Traffic (%)				38%								
Lane Group Flow (vph)	0	47	0	122	119	0	37	967	0	46	856	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		1	2 3		1	2 3	
Permitted Phases	4			4			2 3			2 3		
Detector Phase	4	4		4	4		1	2 3		1	2 3	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		4.0			4.0		
Minimum Split (s)	22.0	22.0		22.0	22.0		18.0			18.0		
Total Split (s)	22.5	22.5		22.5	22.5		18.0			18.0		
Total Split (%)	22.0%	22.0%		22.0%	22.0%		17.6%			17.6%		
Maximum Green (s)	17.0	17.0		17.0	17.0		12.5			12.5		
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0			3.0		
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5			2.5		
Lost Time Adjust (s)		0.0		0.0	0.0		0.0			0.0		
Total Lost Time (s)		5.5		5.5	5.5		5.5			5.5		
Lead/Lag							Lead			Lead		
Lead-Lag Optimize?							Yes			Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0			2.0		
Recall Mode	None	None		None	None		None			None		
Walk Time (s)	5.0	5.0		5.0	5.0		5.0			5.0		
Flash Dont Walk (s)	11.5	11.5		11.5	11.5		7.5			7.5		
Pedestrian Calls (#/hr)	3	3		3	3		3			3		
Act Effct Green (s)		14.6		14.6	14.6		63.4	53.1		63.4	53.1	
Actuated g/C Ratio		0.15		0.15	0.15		0.67	0.56		0.67	0.56	
v/c Ratio		0.21		0.63	0.54		0.09	0.51		0.12	0.45	
Control Delay		37.3		53.3	40.1		4.6	14.2		2.2	5.1	
Queue Delay		1.7		0.0	17.7		0.0	0.2		0.1	8.5	
Total Delay		39.0		53.3	57.8		4.6	14.4		2.3	13.5	
LOS		D		D	E		A	B		A	B	
Approach Delay		39.0			55.5			14.0			13.0	
Approach LOS		D			E			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 102.5

Lane Group	Ø2	Ø3
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	3
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	19.0	19.0
Total Split (s)	41.0	21.0
Total Split (%)	40%	20%
Maximum Green (s)	32.0	12.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	6.0	6.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	2.0	2.0
Recall Mode	Min	Min
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	2.0	2.0
Pedestrian Calls (#/hr)	7	14
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

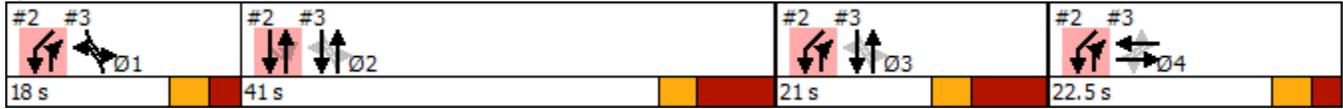
Lanes, Volumes, Timings
 3: Route 1A & Goat Hill Lane/Water Street

2026 No-Build
 Timing Plan: Saturday Mid

Actuated Cycle Length: 94.5
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 18.7
 Intersection Capacity Utilization 56.3%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 3: Route 1A & Goat Hill Lane/Water Street



Queues
3: Route 1A & Goat Hill Lane/Water Street

2026 No-Build
Timing Plan: Saturday Mid

							
Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	47	122	119	37	967	46	856
v/c Ratio	0.21	0.63	0.54	0.09	0.51	0.12	0.45
Control Delay	37.3	53.3	40.1	4.6	14.2	2.2	5.1
Queue Delay	1.7	0.0	17.7	0.0	0.2	0.1	8.5
Total Delay	39.0	53.3	57.8	4.6	14.4	2.3	13.5
Queue Length 50th (ft)	24	71	55	6	175	3	50
Queue Length 95th (ft)	61	144	123	14	268	m4	m76
Internal Link Dist (ft)	214		80		260		92
Turn Bay Length (ft)				100		80	
Base Capacity (vph)	260	225	253	514	1894	470	1917
Starvation Cap Reductn	0	0	0	0	0	145	1019
Spillback Cap Reductn	125	0	116	0	228	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.54	0.87	0.07	0.58	0.14	0.95

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings
4: Route 1A & Congress Street

2026 No-Build
Timing Plan: Saturday Mid

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	  	
Traffic Volume (vph)	0	85	0	923	1043	12
Future Volume (vph)	0	85	0	923	1043	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	12	12
Satd. Flow (prot)	0	1863	0	3539	3568	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	3539	3568	0
Link Speed (mph)	25			25	35	
Link Distance (ft)	648			548	340	
Travel Time (s)	17.7			14.9	6.6	
Confl. Bikes (#/hr)		30				30
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	2%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	91	0	992	1135	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 41.1%
 Analysis Period (min) 15
 ICU Level of Service A

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	85	0	923	1043	12
Future Vol, veh/h	0	85	0	923	1043	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	2	1	0
Mvmt Flow	0	91	0	992	1122	13

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	568	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	471	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	471	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	471	-	-
HCM Lane V/C Ratio	-	0.194	-	-
HCM Control Delay (s)	-	14.5	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.7	-	-

Lanes, Volumes, Timings
1: Route 1A & School Street

2026 Build
Timing Plan: Weekday PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	0	87	0	45	27	89	518	0	0	468	24
Future Volume (vph)	63	0	87	0	45	27	89	518	0	0	468	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	11	11	11	11	11	11
Satd. Flow (prot)	0	1932	0	0	1999	0	0	1773	0	0	1807	0
Flt Permitted		0.830						0.849				
Satd. Flow (perm)	0	1637	0	0	1999	0	0	1516	0	0	1807	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		62			26						4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		429			340			500			313	
Travel Time (s)		11.7			9.3			13.6			8.5	
Confl. Bikes (#/hr)						1						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	1%	0%	0%	4%	2%	3%	0%	0%	1%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	158	0	0	75	0	0	639	0	0	518	0
Turn Type	Perm	NA			NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)	11.5	11.5		11.5	11.5		11.5	11.5			11.5	
Total Split (s)	23.0	23.0		23.0	23.0		55.0	55.0			55.0	
Total Split (%)	23.0%	23.0%		23.0%	23.0%		55.0%	55.0%			55.0%	
Maximum Green (s)	18.5	18.5		18.5	18.5		50.5	50.5			50.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Recall Mode	None	None		None	None		C-Min	C-Min			C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		11.7			11.7			66.1			66.1	
Actuated g/C Ratio		0.12			0.12			0.66			0.66	
v/c Ratio		0.64			0.29			0.64			0.43	
Control Delay		37.0			29.7			18.0			12.6	
Queue Delay		0.0			0.0			0.9			0.0	
Total Delay		37.0			29.7			18.9			12.6	
LOS		D			C			B			B	
Approach Delay		37.0			29.7			18.9			12.6	
Approach LOS		D			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length:	100											
Actuated Cycle Length:	100											
Offset:	3 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Green											
Natural Cycle:	80											

Lane Group	Ø9
<hr/>	
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	22%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	25
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
<hr/>	
Intersection Summary	
<hr/>	

Lanes, Volumes, Timings
 1: Route 1A & School Street

2026 Build
 Timing Plan: Weekday PM

Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 19.2
 Intersection Capacity Utilization 85.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service E

Splits and Phases: 1: Route 1A & School Street

 Ø2 (R)	 Ø4	 Ø9
55 s	23 s	22 s
 Ø6 (R)	 Ø8	
55 s	23 s	

Queues
1: Route 1A & School Street

2026 Build
Timing Plan: Weekday PM

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	158	75	639	518
v/c Ratio	0.64	0.29	0.64	0.43
Control Delay	37.0	29.7	18.0	12.6
Queue Delay	0.0	0.0	0.9	0.0
Total Delay	37.0	29.7	18.9	12.6
Queue Length 50th (ft)	59	29	278	181
Queue Length 95th (ft)	118	67	#518	310
Internal Link Dist (ft)	349	260	420	233
Turn Bay Length (ft)				
Base Capacity (vph)	353	391	1002	1196
Starvation Cap Reductn	0	0	146	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.45	0.19	0.75	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings
2: Route 1A & Cabot Street

2026 Build
Timing Plan: Weekday PM

	↑	↗	↘	↓	↙	↖			
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	Ø1	Ø3	Ø4
Lane Configurations	↑	↗		↖	↙↘				
Traffic Volume (vph)	599	472	0	555	326	7			
Future Volume (vph)	599	472	0	555	326	7			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	12	12	11	11	11	11			
Satd. Flow (prot)	1881	1599	0	1801	3338	0			
Flt Permitted					0.953				
Satd. Flow (perm)	1881	1599	0	1801	3338	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)		513			3				
Link Speed (mph)	25			25	25				
Link Distance (ft)	172			500	390				
Travel Time (s)	4.7			13.6	10.6				
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Heavy Vehicles (%)	1%	1%	0%	2%	1%	20%			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	651	513	0	603	362	0			
Turn Type	NA	Over		NA	Prot				
Protected Phases	2	1 3 4		2	1 3 4		1	3	4
Permitted Phases			2						
Detector Phase	2	1 3 4	2	2	1 3 4				
Switch Phase									
Minimum Initial (s)	10.0		10.0	10.0			4.0	10.0	10.0
Minimum Split (s)	19.0		19.0	19.0			18.0	19.0	22.0
Total Split (s)	50.0		50.0	50.0			21.5	21.0	22.5
Total Split (%)	43.5%		43.5%	43.5%			19%	18%	20%
Maximum Green (s)	41.0		41.0	41.0			16.0	12.0	17.0
Yellow Time (s)	3.0		3.0	3.0			3.0	3.0	3.0
All-Red Time (s)	6.0		6.0	6.0			2.5	6.0	2.5
Lost Time Adjust (s)	0.0			0.0					
Total Lost Time (s)	9.0			9.0					
Lead/Lag	Lag		Lag	Lag			Lead		
Lead-Lag Optimize?	Yes		Yes	Yes			Yes		
Vehicle Extension (s)	2.0		2.0	2.0			2.0	2.0	2.0
Recall Mode	Min		Min	Min			None	Min	None
Walk Time (s)	5.0		5.0	5.0			5.0	5.0	5.0
Flash Dont Walk (s)	2.0		2.0	2.0			7.5	2.0	11.5
Pedestrian Calls (#/hr)	4		4	4			3	15	5
Act Effct Green (s)	41.1	49.0		41.1	49.0				
Actuated g/C Ratio	0.39	0.47		0.39	0.47				
v/c Ratio	0.88	0.50		0.85	0.23				
Control Delay	31.3	16.8		43.3	16.7				
Queue Delay	13.2	11.9		12.2	0.0				
Total Delay	44.6	28.7		55.5	16.7				
LOS	D	C		E	B				
Approach Delay	37.6			55.5	16.7				
Approach LOS	D			E	B				

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 104.6

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

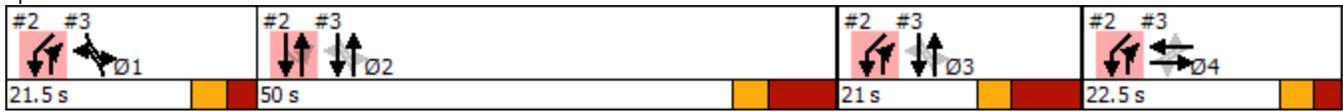
Lanes, Volumes, Timings
 2: Route 1A & Cabot Street

2026 Build
 Timing Plan: Weekday PM

Intersection Signal Delay: 39.1
 Intersection Capacity Utilization 70.5%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service C

Splits and Phases: 2: Route 1A & Cabot Street



Queues
2: Route 1A & Cabot Street

2026 Build
Timing Plan: Weekday PM

	↑	↗	↓	↙
Lane Group	NBT	NBR	SBT	SWL
Lane Group Flow (vph)	651	513	603	362
v/c Ratio	0.88	0.50	0.85	0.23
Control Delay	31.3	16.8	43.3	16.7
Queue Delay	13.2	11.9	12.2	0.0
Total Delay	44.6	28.7	55.5	16.7
Queue Length 50th (ft)	135	178	372	71
Queue Length 95th (ft)	#658	320	#626	100
Internal Link Dist (ft)	92		420	310
Turn Bay Length (ft)				
Base Capacity (vph)	738	1104	707	1820
Starvation Cap Reductn	84	564	94	0
Spillback Cap Reductn	0	0	8	144
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.00	0.95	0.98	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings
3: Route 1A & Goat Hill Lane/Water Street

2026 Build
Timing Plan: Weekday PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	22	1	203	7	22	88	1026	185	36	840	1
Future Volume (vph)	23	22	1	203	7	22	88	1026	185	36	840	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	12	12	10	11	11	10	11	11
Storage Length (ft)	0		0	0		0	100		0	80		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1787	0	1641	1677	0	1685	3343	0	1685	3421	0
Flt Permitted		0.804		0.818	0.761		0.274			0.140		
Satd. Flow (perm)	0	1472	0	1413	1324	0	486	3343	0	248	3421	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			9			28				
Link Speed (mph)		25			25			25				25
Link Distance (ft)		294			160			340				172
Travel Time (s)		8.0			4.4			9.3				4.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	2%	2%	0%	2%	0%
Shared Lane Traffic (%)				42%								
Lane Group Flow (vph)	0	50	0	128	125	0	96	1316	0	39	914	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		1	2 3		1	2 3	
Permitted Phases	4			4			2 3			2 3		
Detector Phase	4	4		4	4		1	2 3		1	2 3	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		4.0			4.0		
Minimum Split (s)	22.0	22.0		22.0	22.0		18.0			18.0		
Total Split (s)	22.5	22.5		22.5	22.5		21.5			21.5		
Total Split (%)	19.6%	19.6%		19.6%	19.6%		18.7%			18.7%		
Maximum Green (s)	17.0	17.0		17.0	17.0		16.0			16.0		
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0			3.0		
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5			2.5		
Lost Time Adjust (s)		0.0		0.0	0.0		0.0			0.0		
Total Lost Time (s)		5.5		5.5	5.5		5.5			5.5		
Lead/Lag							Lead			Lead		
Lead-Lag Optimize?							Yes			Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0			2.0		
Recall Mode	None	None		None	None		None			None		
Walk Time (s)	5.0	5.0		5.0	5.0		5.0			5.0		
Flash Dont Walk (s)	11.5	11.5		11.5	11.5		7.5			7.5		
Pedestrian Calls (#/hr)	5	5		5	5		3			3		
Act Effct Green (s)		15.0		15.0	15.0		73.1	62.2		73.1	62.2	
Actuated g/C Ratio		0.14		0.14	0.14		0.70	0.59		0.70	0.59	
v/c Ratio		0.24		0.63	0.63		0.23	0.66		0.14	0.45	
Control Delay		42.6		57.5	54.8		5.2	16.5		2.3	5.1	
Queue Delay		2.3		0.0	58.9		0.0	0.5		0.1	6.3	
Total Delay		44.9		57.5	113.7		5.2	17.1		2.4	11.4	
LOS		D		E	F		A	B		A	B	
Approach Delay		44.9			85.3			16.2			11.0	
Approach LOS		D			F			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 104.6

Lanes, Volumes, Timings
 3: Route 1A & Goat Hill Lane/Water Street

2026 Build
 Timing Plan: Weekday PM

Lane Group	Ø2	Ø3
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	3
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	19.0	19.0
Total Split (s)	50.0	21.0
Total Split (%)	43%	18%
Maximum Green (s)	41.0	12.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	6.0	6.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	2.0	2.0
Recall Mode	Min	Min
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	2.0	2.0
Pedestrian Calls (#/hr)	4	15
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

Lanes, Volumes, Timings
 3: Route 1A & Goat Hill Lane/Water Street

2026 Build
 Timing Plan: Weekday PM

Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 21.5
 Intersection Capacity Utilization 64.8%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 3: Route 1A & Goat Hill Lane/Water Street

 <p>#2 #3 Ø1 21.5 s</p>	 <p>#2 #3 Ø2 50 s</p>	 <p>#2 #3 Ø3 21 s</p>	 <p>#2 #3 Ø4 22.5 s</p>
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Queues
3: Route 1A & Goat Hill Lane/Water Street

2026 Build
Timing Plan: Weekday PM

							
Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	50	128	125	96	1316	39	914
v/c Ratio	0.24	0.63	0.63	0.23	0.66	0.14	0.45
Control Delay	42.6	57.5	54.8	5.2	16.5	2.3	5.1
Queue Delay	2.3	0.0	58.9	0.0	0.5	0.1	6.3
Total Delay	44.9	57.5	113.7	5.2	17.1	2.4	11.4
Queue Length 50th (ft)	29	85	77	16	295	2	52
Queue Length 95th (ft)	68	160	151	29	418	m4	m90
Internal Link Dist (ft)	214		80		260		92
Turn Bay Length (ft)				100		80	
Base Capacity (vph)	240	230	223	547	1997	405	2032
Starvation Cap Reductn	0	0	0	0	0	78	1055
Spillback Cap Reductn	115	0	105	0	286	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.56	1.06	0.18	0.77	0.12	0.94

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings
4: Route 1A & Congress Street

2026 Build
Timing Plan: Weekday PM

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	121	0	1299	1247	28
Future Volume (vph)	0	121	0	1299	1247	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	12	12
Satd. Flow (prot)	0	1863	0	3539	3530	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	3539	3530	0
Link Speed (mph)	25			25	35	
Link Distance (ft)	648			548	340	
Travel Time (s)	17.7			14.9	6.6	
Confl. Bikes (#/hr)		2				2
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	122	0	1312	1288	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 49.5%
 Analysis Period (min) 15
 ICU Level of Service A

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	121	0	1299	1247	28
Future Vol, veh/h	0	121	0	1299	1247	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	0	122	0	1312	1260	28

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	644	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	420	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	420	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	420	-	-
HCM Lane V/C Ratio	-	0.291	-	-
HCM Control Delay (s)	-	17.1	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	1.2	-	-

Lanes, Volumes, Timings
5: Site Driveway & Water Street

2026 Build
Timing Plan: Weekday PM

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	211	33	7	162	19	1
Future Volume (vph)	211	33	7	162	19	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1829	0	0	1859	1766	0
Flt Permitted				0.998	0.954	
Satd. Flow (perm)	1829	0	0	1859	1766	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	160			1305	464	
Travel Time (s)	4.4			35.6	12.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	265	0	0	184	22	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 24.2% ICU Level of Service A
 Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	211	33	7	162	19	1
Future Vol, veh/h	211	33	7	162	19	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	229	36	8	176	21	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	265	0	439
Stage 1	-	-	-	-	247
Stage 2	-	-	-	-	192
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1299	-	575
Stage 1	-	-	-	-	794
Stage 2	-	-	-	-	841
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1299	-	571
Mov Cap-2 Maneuver	-	-	-	-	571
Stage 1	-	-	-	-	794
Stage 2	-	-	-	-	835

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	579	-	-	1299	-
HCM Lane V/C Ratio	0.038	-	-	0.006	-
HCM Control Delay (s)	11.5	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lanes, Volumes, Timings
1: Route 1A & School Street

2026 Build
Timing Plan: Saturday Mid

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	0	105	0	39	34	69	398	0	0	409	28
Future Volume (vph)	30	0	105	0	39	34	69	398	0	0	409	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	16	16	16	11	11	11	11	11	11
Satd. Flow (prot)	0	1830	0	0	1997	0	0	1776	0	0	1764	0
Flt Permitted		0.909						0.889				
Satd. Flow (perm)	0	1682	0	0	1997	0	0	1590	0	0	1764	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		107			31						4	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		429			340			500			313	
Travel Time (s)		11.7			9.3			13.6			8.5	
Confl. Bikes (#/hr)			2			1						2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	3%	0%	0%	0%	1%	3%	0%	0%	3%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	0	0	75	0	0	476	0	0	446	0
Turn Type	Perm	NA			NA		Perm	NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2					
Detector Phase	4	4		8	8		2	2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Minimum Split (s)	11.5	11.5		11.5	11.5		11.5	11.5			11.5	
Total Split (s)	39.5	39.5		39.5	39.5		74.5	74.5			74.5	
Total Split (%)	29.0%	29.0%		29.0%	29.0%		54.8%	54.8%			54.8%	
Maximum Green (s)	35.0	35.0		35.0	35.0		70.0	70.0			70.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0			1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.5			4.5			4.5			4.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Recall Mode	None	None		None	None		Min	Min			Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		9.1			9.1			29.9			29.9	
Actuated g/C Ratio		0.16			0.16			0.54			0.54	
v/c Ratio		0.38			0.21			0.56			0.47	
Control Delay		14.3			20.5			14.0			12.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		14.3			20.5			14.0			12.1	
LOS		B			C			B			B	
Approach Delay		14.3			20.5			14.0			12.1	
Approach LOS		B			C			B			B	
Intersection Summary												
Area Type:	Other											
Cycle Length:	136											
Actuated Cycle Length:	55.5											
Natural Cycle:	65											
Control Type:	Actuated-Uncoordinated											

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	16%
Maximum Green (s)	19.0
Yellow Time (s)	3.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	20
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Lanes, Volumes, Timings
 1: Route 1A & School Street

2026 Build
 Timing Plan: Saturday Mid

Maximum v/c Ratio: 0.56
 Intersection Signal Delay: 13.7
 Intersection Capacity Utilization 74.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 1: Route 1A & School Street

 Ø2	 Ø4	 Ø9
74.5 s	39.5 s	22 s
 Ø6	 Ø8	
74.5 s	39.5 s	

Queues
1: Route 1A & School Street

2026 Build
Timing Plan: Saturday Mid

	→	←	↑	↓
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	138	75	476	446
v/c Ratio	0.38	0.21	0.56	0.47
Control Delay	14.3	20.5	14.0	12.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	14.3	20.5	14.0	12.1
Queue Length 50th (ft)	7	10	48	42
Queue Length 95th (ft)	67	60	274	235
Internal Link Dist (ft)	349	260	420	233
Turn Bay Length (ft)				
Base Capacity (vph)	1211	1409	1513	1679
Starvation Cap Reductn	0	0	29	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.11	0.05	0.32	0.27
Intersection Summary				

Lanes, Volumes, Timings
2: Route 1A & Cabot Street

2026 Build
Timing Plan: Saturday Mid

									
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR	Ø1	Ø3	Ø4
Lane Configurations					  				
Traffic Volume (vph)	462	371	0	514	335	6			
Future Volume (vph)	462	371	0	514	335	6			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	12	12	11	11	11	11			
Satd. Flow (prot)	1845	1599	0	1783	3319	0			
Flt Permitted					0.953				
Satd. Flow (perm)	1845	1599	0	1783	3319	0			
Right Turn on Red		Yes				Yes			
Satd. Flow (RTOR)		403			3				
Link Speed (mph)	25			25	25				
Link Distance (ft)	172			500	390				
Travel Time (s)	4.7			13.6	10.6				
Confl. Bikes (#/hr)		1				1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Heavy Vehicles (%)	3%	1%	0%	3%	2%	0%			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	502	403	0	559	371	0			
Turn Type	NA	Over		NA	Prot				
Protected Phases	2	1 3 4		2	1 3 4		1	3	4
Permitted Phases			2						
Detector Phase	2	1 3 4	2	2	1 3 4				
Switch Phase									
Minimum Initial (s)	10.0		10.0	10.0			4.0	10.0	10.0
Minimum Split (s)	19.0		19.0	19.0			18.0	19.0	22.0
Total Split (s)	41.0		41.0	41.0			18.0	21.0	22.5
Total Split (%)	40.0%		40.0%	40.0%			18%	20%	22%
Maximum Green (s)	32.0		32.0	32.0			12.5	12.0	17.0
Yellow Time (s)	3.0		3.0	3.0			3.0	3.0	3.0
All-Red Time (s)	6.0		6.0	6.0			2.5	6.0	2.5
Lost Time Adjust (s)	0.0			0.0					
Total Lost Time (s)	9.0			9.0					
Lead/Lag	Lag		Lag	Lag			Lead		
Lead-Lag Optimize?	Yes		Yes	Yes			Yes		
Vehicle Extension (s)	2.0		2.0	2.0			2.0	2.0	2.0
Recall Mode	Min		Min	Min			None	Min	None
Walk Time (s)	5.0		5.0	5.0			5.0	5.0	5.0
Flash Dont Walk (s)	2.0		2.0	2.0			7.5	2.0	11.5
Pedestrian Calls (#/hr)	7		7	7			3	14	3
Act Effct Green (s)	32.1	48.4		32.1	48.4				
Actuated g/C Ratio	0.34	0.51		0.34	0.51				
v/c Ratio	0.81	0.40		0.93	0.22				
Control Delay	29.3	13.8		55.6	12.9				
Queue Delay	4.0	3.4		1.6	0.0				
Total Delay	33.3	17.1		57.1	13.0				
LOS	C	B		E	B				
Approach Delay	26.1			57.1	13.0				
Approach LOS	C			E	B				

Intersection Summary

Area Type: Other
 Cycle Length: 102.5
 Actuated Cycle Length: 95
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated

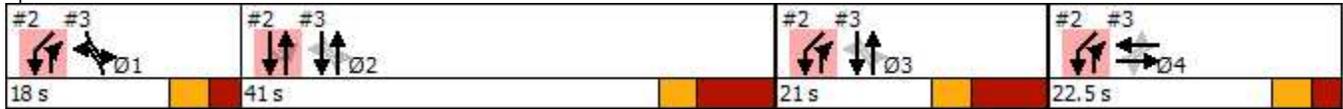
Lanes, Volumes, Timings
 2: Route 1A & Cabot Street

2026 Build
 Timing Plan: Saturday Mid

Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 32.9
 Intersection Capacity Utilization 62.1%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 2: Route 1A & Cabot Street



Queues
2: Route 1A & Cabot Street

2026 Build
Timing Plan: Saturday Mid

	↑	↗	↓	↙
Lane Group	NBT	NBR	SBT	SWL
Lane Group Flow (vph)	502	403	559	371
v/c Ratio	0.81	0.40	0.93	0.22
Control Delay	29.3	13.8	55.6	12.9
Queue Delay	4.0	3.4	1.6	0.0
Total Delay	33.3	17.1	57.1	13.0
Queue Length 50th (ft)	117	110	326	59
Queue Length 95th (ft)	#469	237	#591	85
Internal Link Dist (ft)	92		420	310
Turn Bay Length (ft)				
Base Capacity (vph)	623	1076	601	1870
Starvation Cap Reductn	65	562	0	0
Spillback Cap Reductn	0	0	9	49
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.90	0.78	0.94	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lanes, Volumes, Timings
3: Route 1A & Goat Hill Lane/Water Street

2026 Build
Timing Plan: Saturday Mid

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	24	1	193	4	52	52	751	143	58	782	8
Future Volume (vph)	30	24	1	193	4	52	52	751	143	58	782	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	12	12	10	11	11	10	11	11
Storage Length (ft)	0		0	0		0	100		0	80		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1671	0	1641	1590	0	1636	3339	0	1652	3410	0
Flt Permitted		0.775		0.800	0.820		0.292			0.244		
Satd. Flow (perm)	0	1331	0	1382	1339	0	503	3339	0	424	3410	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			32			32			1	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		294			160			340			172	
Travel Time (s)		8.0			4.4			9.3			4.7	
Confl. Bikes (#/hr)			7			2						7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	6%	4%	100%	1%	0%	5%	3%	2%	2%	2%	2%	13%
Shared Lane Traffic (%)				34%								
Lane Group Flow (vph)	0	60	0	139	132	0	57	971	0	63	859	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		1	2 3		1	2 3	
Permitted Phases	4			4			2 3			2 3		
Detector Phase	4	4		4	4		1	2 3		1	2 3	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		4.0			4.0		
Minimum Split (s)	22.0	22.0		22.0	22.0		18.0			18.0		
Total Split (s)	22.5	22.5		22.5	22.5		18.0			18.0		
Total Split (%)	22.0%	22.0%		22.0%	22.0%		17.6%			17.6%		
Maximum Green (s)	17.0	17.0		17.0	17.0		12.5			12.5		
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0			3.0		
All-Red Time (s)	2.5	2.5		2.5	2.5		2.5			2.5		
Lost Time Adjust (s)		0.0		0.0	0.0		0.0			0.0		
Total Lost Time (s)		5.5		5.5	5.5		5.5			5.5		
Lead/Lag							Lead			Lead		
Lead-Lag Optimize?							Yes			Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0			2.0		
Recall Mode	None	None		None	None		None			None		
Walk Time (s)	5.0	5.0		5.0	5.0		5.0			5.0		
Flash Dont Walk (s)	11.5	11.5		11.5	11.5		7.5			7.5		
Pedestrian Calls (#/hr)	3	3		3	3		3			3		
Act Effct Green (s)		14.9		14.9	14.9		63.5	53.1		63.5	53.1	
Actuated g/C Ratio		0.16		0.16	0.16		0.67	0.56		0.67	0.56	
v/c Ratio		0.29		0.64	0.56		0.14	0.52		0.17	0.45	
Control Delay		39.3		52.3	37.8		5.0	14.4		2.4	5.2	
Queue Delay		3.3		0.0	21.8		0.0	0.2		0.2	11.5	
Total Delay		42.5		52.3	59.6		5.0	14.5		2.6	16.6	
LOS		D		D	E		A	B		A	B	
Approach Delay		42.5			55.8			14.0			15.7	
Approach LOS		D			E			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 102.5

Lane Group	Ø2	Ø3
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	3
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	10.0	10.0
Minimum Split (s)	19.0	19.0
Total Split (s)	41.0	21.0
Total Split (%)	40%	20%
Maximum Green (s)	32.0	12.0
Yellow Time (s)	3.0	3.0
All-Red Time (s)	6.0	6.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	2.0	2.0
Recall Mode	Min	Min
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	2.0	2.0
Pedestrian Calls (#/hr)	7	14
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Intersection Summary		

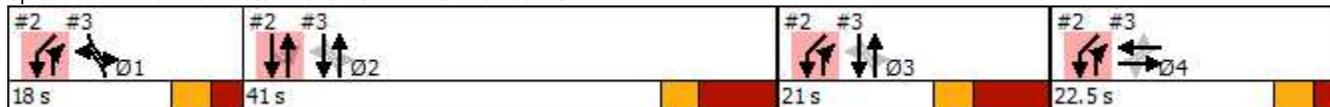
Lanes, Volumes, Timings
 3: Route 1A & Goat Hill Lane/Water Street

2026 Build
 Timing Plan: Saturday Mid

Actuated Cycle Length: 95
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 20.4
 Intersection Capacity Utilization 55.4%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 3: Route 1A & Goat Hill Lane/Water Street



Queues
3: Route 1A & Goat Hill Lane/Water Street

2026 Build
Timing Plan: Saturday Mid

							
Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	60	139	132	57	971	63	859
v/c Ratio	0.29	0.64	0.56	0.14	0.52	0.17	0.45
Control Delay	39.3	52.3	37.8	5.0	14.4	2.4	5.2
Queue Delay	3.3	0.0	21.8	0.0	0.2	0.2	11.5
Total Delay	42.5	52.3	59.6	5.0	14.5	2.6	16.6
Queue Length 50th (ft)	31	82	57	9	176	4	50
Queue Length 95th (ft)	74	160	129	20	269	m6	m76
Internal Link Dist (ft)	214		80		260		92
Turn Bay Length (ft)				100		80	
Base Capacity (vph)	239	247	266	509	1881	465	1907
Starvation Cap Reductn	0	0	0	0	0	136	1026
Spillback Cap Reductn	115	0	121	0	220	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.56	0.91	0.11	0.58	0.19	0.98

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings
4: Route 1A & Congress Street

2026 Build
Timing Plan: Saturday Mid

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	  	
Traffic Volume (vph)	0	96	0	946	1045	26
Future Volume (vph)	0	96	0	946	1045	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	12	12
Satd. Flow (prot)	0	1863	0	3539	3561	0
Flt Permitted						
Satd. Flow (perm)	0	1863	0	3539	3561	0
Link Speed (mph)	25			25	35	
Link Distance (ft)	648			548	340	
Travel Time (s)	17.7			14.9	6.6	
Confl. Bikes (#/hr)		30				30
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	2%	1%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	103	0	1017	1152	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 42.3%
 Analysis Period (min) 15
 ICU Level of Service A

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	96	0	946	1045	26
Future Vol, veh/h	0	96	0	946	1045	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	2	1	0
Mvmt Flow	0	103	0	1017	1124	28

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	576	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	466	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	466	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	466	-	-
HCM Lane V/C Ratio	-	0.222	-	-
HCM Control Delay (s)	-	14.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.8	-	-

Lanes, Volumes, Timings
5: Site Driveway & Water Street

2026 Build
Timing Plan: Saturday Mid

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	189	36	8	195	30	3
Future Volume (vph)	189	36	8	195	30	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1822	0	0	1859	1761	0
Flt Permitted				0.998	0.956	
Satd. Flow (perm)	1822	0	0	1859	1761	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	160			1305	401	
Travel Time (s)	4.4			35.6	10.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	244	0	0	221	36	0
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 26.7% ICU Level of Service A
 Analysis Period (min) 15

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	189	36	8	195	30	3
Future Vol, veh/h	189	36	8	195	30	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	205	39	9	212	33	3

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	244	0	455 225
Stage 1	-	-	-	-	225 -
Stage 2	-	-	-	-	230 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1322	-	563 814
Stage 1	-	-	-	-	812 -
Stage 2	-	-	-	-	808 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1322	-	558 814
Mov Cap-2 Maneuver	-	-	-	-	558 -
Stage 1	-	-	-	-	812 -
Stage 2	-	-	-	-	802 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	11.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	574	-	-	1322	-
HCM Lane V/C Ratio	0.062	-	-	0.007	-
HCM Control Delay (s)	11.7	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-